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ABSTRACT

Current Florida funding formulas for advanced placement, dual enrollment, and international baccalaureate instruction are examined, as well as suggested funding formulas to offset the cost of providing each kind of instruction. After the executive summary, the introduction discusses the commission charge and activities. Articulated acceleration mechanisms, including definitions and current funding procedures, are described for advanced placement, dual enrollment, early admission, international baccalaureate, college-level examination program (CLEP), and proficiency examination program (PEP). The commission research activities are outlined regarding national comparisons, site and telephone interviews (public school districts, community colleges, extra-fiscal concerns), and state funding patterns for advanced placement and international baccalaureate. Issues and recommendations are categorized as to funding incentives, reporting of participants, and funding of instructional materials. Among the 12 recommendations are: (1) school districts must make every effort to promote articulated acceleration programs and to insure the availability of accurate information to students who might potentially want to participate in accelerated instruction; (2) a value of .1 FTE should be provided for each student in each advanced placement course who receives a score of 3 or higher on the College Board Advanced Placement Examination for the prior year; and (3) the Advanced Placement/Dual Enrollment course option should be eliminated, allowing students to choose one or the other program at the time of their enrollment. Three appendices provide national and Florida summary comparisons for the 1987 advanced placement program site and telephone interview questionnaire; and 1987 cost analysis of advanced placement and international baccalaureate programs. Numerous data tables are included. (SM)

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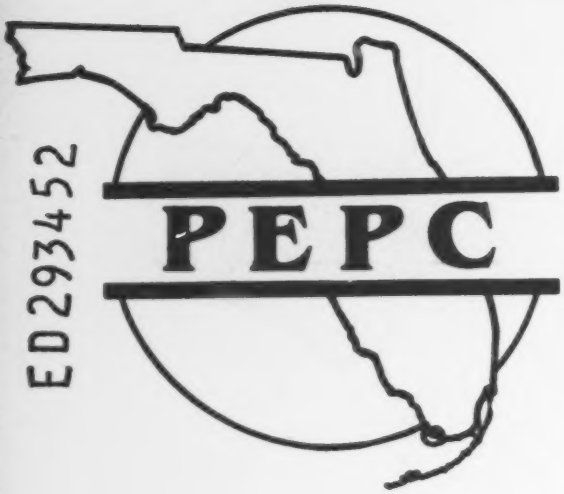

FUNDING OF ACCELERATION MECHANISMS

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Report and Recommendations of the Postsecondary Education Planning Commission

HE021

1988 - REPORT 1

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The Postsecondary Education Planning Commission, initially created by executive order in 1980 and subsequently given statutory authority, serves as an advisory body to the State Board of Education on all postsecondary education matters. The Commission is composed of 11 members of the general public and one full-time student registered at a postsecondary education institution in Florida. Members are appointed by the Governor with the approval of three members of the State Board of Education and subject to confirmation by the Senate.

The major responsibility of the Commission is preparing and updating every five years a master plan for postsecondary education. The enabling legislation directed that the Plan "shall include consideration of the promotion of quality, fundamental educational goals, programmatic access, needs for remedial education, regional and state economic development, demographic patterns, student demand for programs, needs of particular subgroups of the population, implementation of innovative educational techniques and technology, and the requirements of the labor market. The capacity of existing programs, in both public and independent institutions, to respond to identified needs shall be evaluated and a plan shall be developed to respond efficiently to unmet needs."

Other responsibilities include recommending to the State Board of Education program contracts with independent institutions; advising the State Board regarding the need for and location of new programs and branch campuses of public postsecondary education institutions; reviewing public postsecondary education budget requests for compliance with the State Master Plan; recommending to the Commissioner of Education proposals for support through the Postsecondary Cooperation Trust Fund; and periodically evaluating the State's 28 regional coordinating councils for vocational education, adult general education and community instructional services.

Further information about the Commission, its publications, meetings and other activities may be obtained from the Commission office, 304 Knott Building, Department of Education, Tallahassee, Florida, 32301; telephone (904) 488-7894.

POSTSECONDARY EDUCATION PLANNING COMMISSION

FUNDING OF ACCELERATION MECHANISMS

A Study Prepared in Response to

Section 14, Chapter 87-212

Laws of Florida

1988 - Report 1

January 21, 1988

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EXECUTIVE SUMMARY

Commission Charge

In CS/CS/HB 1008 (Chapter 87-212, L.F.), the 1987 Legislature directed the Postsecondary Education Planning Commission to "examine the current funding formulas for advanced placement, dual enrollment, and International Baccalaureate instruction and recommend funding formulas that offset the cost of providing each form of instruction, including related examinations, without making any form of instruction financially advantageous to either school districts or community colleges. The results of this study shall be transmitted to the Legislature no later than February 1, 1988."

Commission Activities

In September, 1987, the Chairman of the Commission directed the Program Committee, chaired by Harry Smith, to produce a review for the full Commission of the funding formulas for advanced placement, dual enrollment and International Baccalaureate instruction. This report was scheduled for action at the January 1988 Commission meeting.

Staff undertook activities in several areas to provide background information to support the Commission in its deliberations, including a national search and review of pertinent literature, a comprehensive review of reports generated within Florida during the last decade, and structured site and telephone interviews. In addition, a Technical Panel was convened to provide technical expertise for the study. The Department of Education Bureau of Management Systems and Services provided a cost survey of the advanced placement and International Baccalaureate programs. Finally, public hearings were held in Tampa and Tallahassee to receive testimony from interested parties.

Articulated Acceleration Mechanisms

There are six main articulated acceleration mechanisms in use in Florida secondary schools: advanced placement, dual enrollment, early admission, the International Baccalaureate program, the College-Level Examination Program (CLEP), and the Proficiency Examination Program (PEP).

Current Funding Procedures

For advanced placement students, school districts are allowed to generate an additional .3 FTE for each student scoring 3 or higher on the nationally standardized Advanced Placement examination. Dually enrolled students generate FTE funding for the school district and the community college receives an additional .3 FTE for each FTE generated under dual enrollment. Early admission is funded as a dual enrollment program. Dually enrolled students are exempt from registration, matriculation and laboratory fees. The International Baccalaureate program currently receives no special funding. No special state funding is provided for CLEP or PEP.

Commission Findings and Recommendations

The expanded availability of accelerated instruction makes it imperative that a purposeful effort be undertaken to guarantee that students and their parents are aware of the existence of articulated acceleration programs and have access to accurate information.

1. **School districts must make every effort to promote articulated acceleration programs and to insure the availability of accurate information to students who might potentially want to participate in accelerated instruction.**

Funding Incentives

The additional .3 FTE allocated to the advanced placement program was originally linked to the Florida Education Finance Program (FEFP), which at that time was funded at a lower level per student than it is today. Based on the current level of funding of the FEFP, the .3 factor is no longer representative of the actual additional costs of offering an advanced placement course. The International Baccalaureate Program, an acceleration option attractive particularly in light of Florida's emerging importance as an international economic center, should be funded at a level which addresses the additional costs associated with this program. Cost analysis data compiled by the Department of Education in cooperation with the Commission have documented the additional funding required.

2. **A value of .1 FTE should be provided for each student in each advanced placement course who receives a score of 3 or higher on the College Board Advanced Placement Examination for the prior year.**

3. **Funding comparable to that of the Advanced Placement program, a supplement of .1 FTE per student receiving a score of 4 or higher on an International Baccalaureate examination, should be allocated to the International Baccalaureate program, providing school districts with the option to offer either program.**

4. **The Department of Education should conduct an annual review of the costs incurred by offering the advanced placement and International Baccalaureate programs to ensure the continuing fairness and accuracy of the funding formula.**

5. **The additional factor for dually enrolled students in community colleges should be changed from .3 to .25 to reflect more accurately the waived tuition and other related costs of providing this instruction.**

The combined Advanced Placement/Dual Enrollment course option is not viable because of conflicting college semester and district school year calendars, and the FTE calculation and reimbursement problems which result.

6. **The Advanced Placement/Dual Enrollment course option should be eliminated, allowing students to choose one or the other program at the time of their enrollment.**

Reporting of Participants

The accurate reporting of dual enrollments at both the secondary and postsecondary institutions is necessary to insure appropriate reimbursement of FTEs.

7. **Districts and community colleges must monitor student enrollment figures to assure accurate reporting of students enrolled in their dual enrollment programs.**

Although instructional time is calculated at the school district in terms of class hours and at the community college in terms of credit hours, the differences in funding produced by the methodology of funding enrollments are not significant enough to warrant a major revision in reporting procedures.

8. **The equation of six semester credit hours to one full high school credit, or three semester credit hours to one-half high school credit, should be maintained.**

The collection of specific data from advanced placement classes might reveal patterns to explain Florida's relatively low success rate compared to the regional and national average scores on the advanced placement examination.

9. **The Department of Education should collect and maintain data on acceleration class sizes and analyze the correlation of this variable with class grades and advanced placement scores.**

Funding of Instructional Materials

The funding of instructional materials for dually enrolled students, including textbook allocations and vocational education materials, presents complicated problems which are not served well by a generic statewide formula, but which could be more easily resolved at the local level.

10. **Textbook allocations should be jointly determined between the district and the community college in their articulation agreement and funded locally.**

11. **Decisions on allocations for materials and tools used in vocational instruction can best be made by the institutions involved through the joint articulation agreement.**

The full underwriting of advanced placement and International Baccalaureate examination costs both preserves the state's constitutional guarantee of a free secondary education and discourages discrimination between college-bound and non-college-bound students.

12. **Because the fees for examinations have been factored into the cost of providing accelerated instruction, examination fees should be 100% underwritten by the school district.**

I. INTRODUCTION

Commission Charge

In CS/CS/HB 1008 (Chapter 87-212, L.F.), the 1987 Legislature directed the Postsecondary Education Planning Commission to "examine the current funding formulas for advanced placement, dual enrollment, and International Baccalaureate instruction and recommend funding formulas that offset the cost of providing each form of instruction, including related examinations, without making any form of instruction financially advantageous to either school districts or community colleges. The results of the study shall be transmitted to the Legislature no later than February 1, 1988."

Commission Activities

In September 1987, the Chairman of the Commission directed the Program Committee, chaired by Harry Smith, to produce a review for the full Commission of the funding formulas for advanced placement, dual enrollment and international baccalaureate instruction. This report was scheduled for action at the January 1988 Commission meeting.

Staff undertook activities in several areas to provide background information to support the Commission in its deliberations. A national search and review of pertinent literature was conducted on the topics of dual enrollment, funding, and cooperative programs in secondary and postsecondary education institutions. A comprehensive review was conducted of reports within Florida during the last decade, including the report of the Task Force on Dual Enrollment, appointed by then Commissioner of Education Ralph Turlington in 1984; the 1985 House Committee on Higher Education Oversight Subcommittee Report on Articulation; the 1986 report of the Oversight Subcommittee, "Articulated Acceleration in Florida: More of a review than anyone thought possible"; and the 1987 report of the State of Florida Department of Education, "Student Acceleration in Florida: 1985-86."

In addition, a Technical Panel composed of representatives of the State University System, the Community College System and the Department of Education Division of Public Schools was convened to provide technical expertise for the study. Structured site visits and telephone interviews were held by Commission staff with public school district and community college personnel to obtain a select sample representative of different education constituencies. Information was also gathered on the structure and funding of articulated acceleration programs in other states. The Department of Education Bureau of Management Systems and Services provided a cost survey of both the advanced placement and International Baccalaureate programs. Finally, public hearings were held in Tampa and Tallahassee to receive testimony from interested parties.

Throughout the process of developing background information and analyses for the Committee, Commission staff met with and received valuable input from the staffs of the State Board of Community Colleges and the Board of Regents, the Department of Education Division of Public Schools, legislative staff, college board staff, and representatives of public schools, community colleges and state universities.

II. ARTICULATED ACCELERATION MECHANISMS

Background

Advanced placement, dual enrollment and international baccalaureate instruction are established curricular options in Florida's public school system which allow students to advance into more demanding coursework and receive appropriate secondary and postsecondary credit, thus reducing the amount of time needed to pursue an associate of arts or baccalaureate degree. Such programs allow students to progress more rapidly in postsecondary education and to enrich their secondary school curriculum.

Since 1972, the Florida Legislature has enacted laws designed to facilitate the use of these as well as other acceleration mechanisms and to provide incentives to secondary and postsecondary institutions to encourage qualified students to avail themselves of the acceleration options. Some of these incentives have been fiscal in nature. Each of the mechanisms offers certain advantages and disadvantages to students, high schools and postsecondary institutions. The degree of participation varies considerably among the available options as does participation in particular programs over time. Over the last fifteen years, the Legislature has amended or enhanced the statutes governing the mechanisms to provide further incentives or to remove perceived obstacles to participation. In 1987, the House Higher Education Committee studied the issue in some detail. The study resulted in the passage of CS/CS/HB 1008 with language clarifying legislative intent and administrative procedures and also requesting the Commission to undertake this funding study.

Definitions and Current Funding Procedures

There are six main articulated acceleration mechanisms in use in Florida secondary schools: the three mechanisms mentioned above - dual enrollment, advanced placement, and the International Baccalaureate Program - as well as three others - early admission, the College-Level Examination Program and the Proficiency Examination Program. Each of the six major acceleration programs will be described briefly. Since the Legislature established the acceleration mechanisms, it has attempted to encourage increased participation in the programs through fiscal support designed to either offset additional costs incurred by the programs or to provide incentives to overcome real or perceived obstacles to participation. The following includes a description of current funding formulas.

Advanced Placement (AP). The student enrolls in a high school course significantly more demanding of time and intellectual skill than the corresponding course in the regular high school curriculum. Upon completion, the student may choose to take a nationally-standardized commercial examination and is awarded postsecondary credit if he receives a score of at least 3 out of 5 possible points. Currently, a value of 0.3 full-time equivalent (FTE) student membership is calculated for each student in each advanced placement course who receives a score of 3 or higher on the College Board Advanced Placement Examination for the prior year and added to the total full-time equivalent student membership in basic programs for grades 9 through 12 in the subsequent fiscal year. Advanced placement is the preferred

acceleration mechanism with the highest participation rates in the state. As indicated in Table 1, in 1985-86, 18,940 students were enrolled. Growth in the program has been strong. The number of participants has more than doubled between 1980-81 and 1985-86.

Dual Enrollment (DE). The student enrolls in a course and receives credit for that course toward the high school diploma and the associate or baccalaureate degree. Dual enrollment courses may be taught at the high school, area vocational center or community college campus by community college faculty or high school faculty who are certified by the community college to serve as adjunct instructors to the community college. For dually enrolled students, the school district, as well as the community college, receives FTE funding for the student. The community college also receives an additional .3 FTE for each FTE generated under dual enrollment. Students are exempt from the payment of registration, matriculation and laboratory fees. Dual enrollment participation has been very sensitive to funding formulas. In 1982-83, the number of dually enrolled students dropped sharply. At that time, school districts were receiving only one-half FTE per student. To make dual enrollment a more attractive option, the 1984 legislature restored full funding (one FTE) to the districts. In response, the number of dually enrolled high school students has increased significantly (Table 1).

Early Admission. The student attends a postsecondary institution full-time during the last one or two semesters of high school, receiving credit for both the high school diploma and the associate or baccalaureate degree. Early admission is funded as a dual enrollment option. The cost of instructional materials is determined in the inter-institutional agreement and the student is exempt from registration, matriculation and laboratory fees.

International Baccalaureate (IB) Program. The student enrolls in an integrated program of studies tantamount to a comprehensive advanced placement curriculum, with additional requirements of an extended research paper or essay and designated time spent in some "creative or aesthetic experience or social service activity." The International Baccalaureate Program Diploma is awarded only if the student meets curricular, service and thesis requirements and receives a score of at least 4 out of 7 possible points on the internationally-standardized subject examinations. Currently only a few districts offer the IB program. The State does not provide any special funding for the program, although it was recognized by the Legislature in 1987 in CS/CS/HB 1008 as another acceleration mechanism. It has been suggested that a district, in offering the IB program, incurs additional costs similar to the AP program (lower student/faculty ratios, more expensive instructional materials, and purchase of commercial examinations, among others) and, therefore, an additional cost factor should be provided. The number of districts offering IB programs is expected to increase.

College-Level Examination Program (CLEP). The student completes a nationally-standardized examination, receiving postsecondary credit for scores at or above the fiftieth percentile. No structured curriculum exists to undergird the content of the examination. No special state funding is provided.

Proficiency Examination Program (PEP). Similar to CLEP, the student receives credit by examination. Proficiency Examination Program differs from CLEP in the subject areas tested. As with CLEP, no special state funding is provided.

TABLE 1

NUMBER OF STUDENTS USING ACCELERATION MECHANISMS
1983-84 Through 1985-86

Programs	1983-84	1984-85	1985-86
High School Students Enrolled in Advanced Placement Courses	12,399	16,291	18,940
High School Students Enrolled in Dual Enrollment Courses:			
Reported by District	2,443	3,942	6,100
Reported by CC	2,337	4,223	6,636
Reported by SUS	44	129	186
Total CC and SUS:	2,381	4,352	6,822

SOURCE: Florida Department of Education, "Student Acceleration in Florida, 1985-86"

III. COMMISSION RESEARCH ACTIVITIES

National Comparisons

Other states have experienced varied success in implementing articulated acceleration programs. The program enacted three years ago by the California Legislature failed because the expenses incurred could not be borne by the education budget. In Louisiana, new legislation for advanced placement classes authorizes the State to pay the examination fees for students who score above a 3 on the examination, with an annual cap on the number of eligible students.

South Carolina has adopted advanced placement, in particular, as a way to improve secondary education. Implementation of the program has followed five steps:

1. The Legislature mandated at least one advanced placement course in every public school, with allowances for smaller schools to pool resources and requirements for larger schools to offer more courses.

2. The State provides two weeks of teacher training each year for both private and public school teachers. Although public schools are obligated by law to have effective AP programs with a majority of students scoring above 3, the State has encouraged private schools to follow the same guidelines by offering the teacher training to those whose programs are successful.

3. By state law, every public college must accept and grant credit for successful advanced placement scores.

4. State legislation mandates payment for every AP candidate to sit for examinations.

5. The State pays for all instructional materials, lab fees and costs directly incurred in the process of providing instruction.

In Florida, the AP program is an option at 287 public high schools, an increase of 37% since 1983 (Table 2). When Florida student scores are compared to the national mean score on the AP examination, a significant difference exists (Table 3). Regionally, however, the performance gap is less wide, with 56% of Florida students achieving a passing score compared to a 62% regional pass average and 67.5% nationally (Table 3). (See Appendix A for scores according to ethnic, gender and subject distributions.)

Part of the reason for Florida's lower success rate is a normal statistical reflection of the increased number of students taking the examination (Tables 1 and 3). In 1983, when the South Carolina Legislature mandated AP programs in every high school, the average success rate of its students plummeted, but by 1987 it had increased by 10%. Similarly, Florida's success rate can be expected to dip by comparison to other states since more students are now sitting for the examination and examination fees are now entirely underwritten for all students. In addition, the .3 FTE per student per exam may have increased the number of students being directed to the AP program.

TABLE 2

SUMMARY REPORT OF

1987 ADVANCED PLACEMENT PROGRAM PARTICIPATION

	NATIONAL					REGIONAL					FLORIDA				
	1983	1984	1985	1986	1987	1983	1984	1985	1986	1987	1983	1984	1985	1986	1987
NUMBER OF AP SCHOOLS	5,827	6,273	6,720	7,201	7,776	1,133	1,246	1,412	1,577	1,764	210	233	273	287	287
NUMBER OF STUDENTS TAKING EXAMINATIONS	157,973	177,406	205,650	231,378	262,081	26,062	32,203	42,482	50,056	57,344	6,526	9,265	13,936	16,030	16,895
TOTAL NUMBER OF AP EXAMINATIONS (Includes all Subject Exams)	211,160	239,666	280,972	319,224	369,056	33,540	42,011	56,914	67,725	79,822	8,521	12,387	19,389	22,477	24,319

SOURCE: The College Board

TABLE 3

AP GRADE DISTRIBUTIONS FOR ALL CANDIDATES - 1987

AP Grade	National Total Exams	Regional Total Exams	Florida Total Exams
5	49,789	8,817	2,606
4	79,102	15,008	4,066
3	117,567	24,395	7,062
2	85,964	21,236	6,708
1	32,382	10,366	3,877
Total Exams	364,803	79,822	24,319
Total Candidates	259,222	57,344	16,895
Mean Grade	3.08	2.88	2.79
% Passing Grades	67.55	61.65	56.47

SOURCE: The College Board

Another reason for the lower success rate is linked to the rapid growth of the AP program in Florida and the necessity to train large numbers of teachers new to the AP curriculum. The College Board suggests maximum class sizes of 20 to 25 students, but the lack of AP trained teachers can result in larger classes with less individual attention for students. In some cases, as many as 40 students are enrolled in a single AP class, although the majority of class sizes do fall within the suggested guidelines.

Site and Telephone Interviews

A series of structured site visits and telephone interviews were held with public school district and community college personnel to obtain a select sample representative of different education constituencies. All parties concerned emphasized administrative commitment as the key to success for articulated acceleration. Both education sectors agree that the joint agreements on articulation between institutions are important and valuable in structuring the acceleration options available to students. Agreements spell out the disbursement of funds between the two institutions, as well as the level of teacher certification for dual enrollment courses and selection criteria for students (including minimum grade point average and American College Testing Program/Scholastic Aptitude Test scores). Some fiscal concerns remain, however, which cannot be addressed by the joint agreements but which should receive clarification in order to facilitate the programs. The following is a summary of the prevailing concerns of personnel from both large and small, urban and rural school districts and community colleges pertaining to funding of articulated acceleration programs (Site Visit/Telephone Interview Questionnaire, Appendix B).

Public School Districts

Four main areas of concern relative to the funding of articulated acceleration programs pose problems at the public school system level:

1. The categorical 5% hold back on the instructional materials budget. State funding for instructional materials for the students in AP and dual enrollment courses changed in the 1987 session. Formerly a percentage of all state instructional materials funds was set aside and then distributed to the districts according to the number of students participating in the acceleration programs. As of the 1987 legislative session, the Department of Education is holding back 5% of each district's appropriation which will then be reimbursed to the districts for their dually enrolled students. Because each district receives its allocation based on the previous year's participation, this will result in increased funds for some districts and decreased funds for others. Some school districts have expended less than 5% of their instructional materials budget on acceleration programs, and perceive that the regular student body is being penalized by having funds withheld. Other districts have spent more than 5%, and are uncertain that the surplus will be reimbursed.

2. Underwriting of examination fees. Previous policies on examination fees in the advanced placement program have varied from total underwriting by the school district to shared funding based on the student's score on the

examination to non-participation in examination fee funding. As of 1987, all school districts are required to underwrite the costs of providing the examinations to students. Those school districts which did not underwrite the examination fees used the money now set aside for that purpose to fund other aspects of acceleration programs. The philosophy was that the cost of the examination ($54 in 1987) provided the student with low-cost college credit for which (s)he should be responsible. The new legislation ensures, however, that the constitutional guarantees of free instruction are protected, and discourages discrimination between college-bound and non-college-bound students.

3. Determination and scheduling of reimbursements for students enrolled in AP/DE courses. Practical questions impede the implementation of the AP/DE course option. Most of the smaller school districts have chosen not to provide this option, adopting the philosophy that the school district assumes responsibility for AP programs and the community college assumes responsibility for dual enrollment. Larger districts, Dade and Broward Counties, in particular, are actively developing models for the AP/DE course. Reimbursement of the appropriate factor of the FTE (.3 to the district for the AP student who successfully scores on an examination or 1.3 to the community college for each FTE generated in dual enrollment) is determined by the student's choice of option. Since the 1987 legislation does not specify the student's decision date, extra-fiscal factors such as synchronization of semester calendars and computer schedules must be adjusted in order to provide figures soon enough for reimbursement based on previous year's participation.

4. Funding for the International Baccalaureate Program. The International Baccalaureate Program, which has been implemented in Alachua, Broward, Duval, Orange, Pinellas and Santa Rosa Counties, currently receives no special state funding. It is recognized as a successful program. In Alachua County, for example, of the first graduating class which finished in May, 1987, 17 of 75 were Merit Scholars. Many of these students were accepted at top universities around the country and garnered $500,000 in scholarships. School officials have testified that funding similar to that accorded the AP program would ensure the viability of the IB program and recognize its importance as an acceleration option.

Community Colleges

The community college funding process is primarily program-generated and, with the exception of workload adjustments, is not directly tied to enrollments. Therefore, although the community college receives no tuition from the dually enrolled student, fiscal concerns are not solely linked to reimbursement per FTE. The main issues with regard to acceleration funding are:

1. Reimbursement for AP/DE courses. Concerns are the same as those expressed by the school district representatives: reimbursement of the appropriate factor of the FTE to the appropriate institution is dependent on the student's choice of enrollment. Timing of that choice complicates the reimbursement procedures because of differing semester and computer schedules between high schools and colleges.

2. Potential fiscal consequences of offering AP/DE courses. The AP/DE course option presents a potential fiscal risk to the community college when the college initiates the course, coordinates scheduling, hires the instructor, provides counseling for the students, and even provides the facilities for the course. Should the majority of students in the course opt for the AP examination and credit, then reimbursement to the college will not be proportional to its role in having provided the education.

Extra-Fiscal Concerns

Both public school and community college officials express concerns about areas which, while not directly fiscal in nature, nevertheless affect the success of articulated acceleration. They include:

1. Consistency of legislation. Officials testified to a reluctance to implement new options in accelerated programs because of questions whether the legislation will remain unchanged long enough for school districts to integrate it successfully into their curricula. Districts need at least a full year to implement changes, since the school calendar, teacher scheduling, student registration, and other parameters are already set up for the following year by the end of the legislative term. If legislation is passed late in the session, it cannot be fully integrated into the system until May of the following year.

2. Textbook inventory and control. Textbooks belong to the school district, and legislation requires that textbooks used in dual enrollment courses be treated the same as those used in regular high school courses, where a system is in place for pick-up, inventory, storage and reporting. The current system for the inventory of textbooks uses a three-part form: one copy to the State, one to the community college, and one to the student's high school. The district Textbook Manager does not receive a form, and has no way of compiling an inventory and collecting the textbooks unless he requests the college to send copies of their forms. Rather than require colleges to report the inventory of textbooks used in college campus-based dual enrollment courses, officials suggest adding a fourth copy to the forms currently in use, addressed directly to the Textbook Manager.

3. Faculty selection and hiring. Faculty selection and hiring for dual enrollment courses are complicated by availability of advanced degrees in specific areas, union contracts and geographic location of the course. In Broward County, for example, the community college has chosen to certify high school instructors to teach dual enrollment courses rather than use its own college instructors in order to avoid infringement of contract service clauses with the district teachers' union. In some districts, the lack of availability of a teacher with an advanced degree in a specific field, such as mathematics, limits the course offerings. When college instructors are available, they are frequently unable to provide dual enrollment instruction because of scheduling conflicts or because the course is being offered on the high school campus five days a week (as opposed to the three-day week of the college schedule).

State Funding Patterns:
Advanced Placement and International Baccalaureate Programs

The Department of Education Bureau of Management Systems and Services conducted a cost survey of both the Advanced Placement and International Baccalaureate Programs, based on 1986-87 data. The following provides the results of this survey.

Advanced Placement

The five districts surveyed to determine the additional costs incurred to offer advanced placement courses were Orange, Seminole, Hillsborough, Pinellas and Alachua Counties. Survey instructions asked each district to submit a survey form for each advanced placement class conducted in the high schools with the largest and second largest AP programs. The survey form was designed to provide information on type of course, student participation, teacher cost, and additional costs of materials, equipment, and examinations (Cost Survey Form, Appendix C).

Survey information for teacher costs were contrasted with teacher costs for the Basic Programs, Grades 9-12, at each school to determine the teacher salary and benefit cost differential associated with advanced placement courses. Basic Program, Grades 9-12, costs for each surveyed school were obtained from the 1986-87 Program Cost Report.

The survey response provided data on classes for 346.82 FTE students and 21.0 FTE teachers (Advanced Placement Cost Survey, Appendix C). In aggregate, the additional costs per FTE student were: teacher salary and benefits, $546; other costs, $676; total, $1,223. In the basic grades, 9-12, the pupil-teacher ratio is 17.52 to 1, compared to the ratio of 16.52 to 1 in advanced placement classes. Additional costs varied with the pupil-teacher ratio of each school from $8,211 to $281. Based on the current passing rates for advanced placement, a factor of .11 FTE per student passing the AP examination would allow the district to recover the costs.

International Baccalaureate Program

Three districts, Orange, Pinellas and Alachua Counties, were surveyed to determine the additional cost incurred to offer the International Baccalaureate Program. The survey form was designed to provide information on type of course, student participation, teacher cost, and additional costs of materials, equipment and fees.

Survey information for teacher costs were contrasted with teacher costs for the Basic Program, Grades 9-12, at each school to determine the teacher salary and benefit cost differential (per FTE student) associated with the International Baccalaureate Program. Basic Program, Grades 9-12, costs for each surveyed school were obtained from the 1986-87 cost report.

The response from the three programs in three districts provided data on classes for 270.33 FTE students and 17.3 FTE teachers. Two programs provided data on Pre-International Baccalaureate courses (International Baccalaureate Cost Survey, Appendix C). In aggregate, the additional costs per FTE student

were: teacher salary and benefits, $334; other costs, $759; total, $1,103. The pupil-teacher ratio in the basic grades, 9-12, were 16.06 to 1, compared to a ratio of 15.63 to 1 in the International Baccalaureate classes. Based on the current passing rates for the International Baccalaureate Program, a factor of .1 FTE per student passing the International Baccalaureate examination would allow the district to recover these costs.

IV. ISSUES AND RECOMMENDATIONS

The articulated acceleration mechanisms employed between the secondary and postsecondary sectors are successful programs which support the State's policy of providing quality education. Legislative intent, clarified in CS/CS/HB 1008, accurately reflects the importance of accelerated programs among the curricular options available to high school students: "It is intended that articulated acceleration serve to shorten the time necessary for a student to complete the requirements associated with the conference of a degree, broaden the scope of curricular options available to students, or increase the depth of study available for a particular subject."

The expanded availability of accelerated instruction (Table 1) makes it imperative that a purposeful effort be undertaken to ensure that students and their parents are aware of the existence of articulated acceleration programs and have access to accurate information. Although the creation of such awareness is a function of the education counseling staff, the responsibility is equally or more incumbent upon the superintendent of schools and school district representatives on the articulation committees. Enthusiasm for the programs must begin at the central administrative office and flow down to the individual schools. If the school system at large supports accelerated programs, counselors will be better informed about the programs and more apt to convey the necessary information to the students. In the 1986 report of the Oversight Committee of the Committee on Higher Education, the Florida House of Representatives, it was recommended that "the director of guidance within each high school should be responsible for advertising the dual enrollment program by whatever means best promote student awareness and inform students about ways in which they can find additional information about the program." This recommendation is valid for all articulated acceleration programs.

Recommendation:

1. **School districts must make every effort to promote articulated acceleration programs and to insure the availability of accurate information to students who might potentially want to participate in accelerated instruction.**

Funding Incentives

Currently, the State funds advanced placement and dual enrollment at more than the one FTE normal instruction would generate. According to testimony from Department of Education staff, the .3 FTE factor for advanced placement was established based on a 1983 cost analysis which indicated higher instructional material costs and lower faculty/student ratios in AP courses than in normal high school courses. A .3 FTE for each student scoring 3 or above on an AP examination was determined to be an adequate representation of the additional cost. The .3 FTE was tied to the Florida Education Finance Program (FEFP) which at that time was funded at a much lower level per student than it is today. The .3 FTE generated approximately $350 in 1983 but is currently generating approximately $650.

According to the 1986-87 cost survey provided by the Department of Education, the additional cost of advanced placement instruction would equate to a

supplement of approximately .1 per student per successfully completed examination. The actual factor calculated was .11. However, for ease of administration and consistency with the International Baccalaureate Program discussed below, the factor should be rounded to .1.

Recommendation:

2. **A value of .1 FTE should be provided for each student in each advanced placement course who receives a score of 3 or higher on the College Board Advanced Placement Examination for the prior year.**

The International Baccalaureate Program is a viable acceleration option which provides academic, civic and cultural enrichment. Florida's growth in international activity should be encouraged by the State in the area of education. As an economic force of emerging importance in attracting foreign business, Florida should be aware of the appeal of the IB program to families affiliated with international industries and concerns.

Based on the 1986-87 cost survey of the International Baccalaureate Program, provided by the Department of Education, the additional cost of instruction would equate to a supplement of .1 per student per successfully completed examination.

Recommendation:

3. **Funding comparable to that of the Advanced Placement Program, a supplement of .1 per student receiving a score of 4 or higher on an International Baccalaureate examination, should be allocated to the International Baccalaureate Program, providing school districts with the option to offer either program.**

In order for participation in the advanced placement and International Baccalaureate programs to peak and stabilize, education entities must have confidence about projecting future allocations commensurate with the expenses of administering accelerated programs. An annual survey of actual costs incurred would ensure that the funding formula is generating sufficient funding to offset fully the cost of institutional participation.

Recommendation:

4. **The Department of Education should conduct an annual review of the costs incurred by offering advanced placement and International Baccalaureate programs to ensure the continuing fairness and accuracy of the funding formula.**

With regard to dual enrollment, the State provides FTE funding for both school districts and community colleges and increases each FTE generated in a community college by a factor of .3. While this does not automatically translate into a 30 percent increase in funding for the community colleges due to a different funding approach, the .3 FTE can result in a workload funding adjustment for individual colleges. It is argued that without these provisions, school districts would have little incentive to participate

because they lose the funding the student would otherwise generate. It is also reasoned that without the extra .3 FTE community colleges would have little incentive to negotiate the staffing and scheduling of dually enrolled students (which can be very complicated at times). There is no question that participation is linked to funding. When full funding for the school districts replaced one-half FTE funding in 1984, participation increased significantly.

For community colleges, to what degree does the additional .3 FTE represent additional direct or indirect costs incurred in operating the program? Does it function partially as an incentive or does it serve as a fee replacement since the colleges cannot charge fees to dually enrolled students? The waived tuition for a dually enrolled student actually represents 22% of the value of a full FTE. Including incidental costs of scheduling, transcripts and materials, a .25 FTE per dually enrolled student comes closer to approximating the actual cost than does the .3 FTE.

A third issue is the participation of state universities in incentive funding. Currently, they do not receive the .3 FTE for students participating in dual enrollment, as the community colleges do, but dually enrolled students are counted directly in FTE calculations. As is evident in Table 1, State University System participation is a fraction of that of the community colleges. It would appear that a consistent state policy would be to equalize the funding mechanisms for both higher education sectors. However, representatives of the State University System have indicated that an additional factor for dually enrolled students would have an adverse impact on their institutions' individual enrollment caps.

Recommendation:

5. **The additional factor for dually enrolled students in community colleges should be changed from .3 to .25 to reflect more accurately the waived tuition and other related costs of providing this instruction.**

The combined Advanced Placement/Dual Enrollment option presents complicated FTE calculation and reimbursement problems. Because advanced placement and dual enrollment are operated on different academic schedules, the student's choice of the dual enrollment option, if it occurs later in the term than the community college's drop-add deadline, would require major readjustment of computer schedules and records of enrollment, grades and FTE calculations for reimbursement.

Recommendation:

6. **The Advanced Placement/Dual Enrollment course option should be eliminated, allowing students to choose one or the other program at the time of their enrollment.**

Reporting of Participants

Over the years, the community colleges and universities have reported differing numbers of participants in dual enrollment programs. Since dual

enrollment means that each participant is simultaneously enrolled at a high school and at either a community college or a university, the dual enrollment data for school districts and for community colleges and state universities should be comparable. However, the system totals vary by as much as 500 students. For example, in 1985-86, the districts reported 6,100 students dually enrolled, while the community colleges reported 6,636 students. Because the state funds on reported enrollments, it is important that the reporting system be standardized. One reason offered to explain the discrepancies is that school districts only count their students officially enrolled as indicated by the joint district-community college agreements while community colleges may be counting all students who are enrolled on their campuses who are currently enrolled in high school, including those from private institutions and those who have not officially enrolled in the school district. By law, however, the additional .3 FTE granted to the community college applies only to those students officially enrolled from the public school districts. It is expected that the increased use of social security numbers throughout the student body, as a result of new IRS requirements, and mechanisms such as the Occupational Identifier Program will facilitate improved record-keeping in the future.

Recommendation:

7. **Districts and community colleges must monitor student enrollment figures to assure accurate reporting of students enrolled in their dual enrollment programs.**

With regard to the standardization of instructional hours between the school district and community college systems, CS/CS/HB 1008 mandates that six semester credit hours of college instruction be equal to one full high school credit. However, in calculating funding for high schools an FTE equates to 900 hours of instruction while in the community college an FTE equates to 40 credit hours of instruction. While slight discrepancies occur as a result of the differences in reporting for funding purposes, they are not significant enough to warrant a major revision in reporting procedures for either sector.

Recommendation:

8. **The equation of six semester credit hours to one full high school credit, or three semester credit hours to one-half high school credit, should be maintained.**

The rapid growth of the advanced placement program in Florida has made it necessary to train large numbers of teachers new to the advanced placement curriculum. The College Board suggests maximum class sizes of 20 to 25 students, but the lack of trained teachers can result in larger classes with less individual attention for students. Although no psychometric model exists to correlate class grades with advanced placement examination scores, College Board officials have testified that such a comparison could reveal examples of lower examination pass rates due to variables such as large class sizes and newly trained teachers.

Recommendation:

9. **The Department of Education should collect and maintain data on acceleration class sizes and analyze the correlation of this variable with class grades and advanced placement examination scores.**

Funding of Instructional Materials

The funding of instructional materials in programs where students are dually enrolled in the secondary and postsecondary sector has always presented some problems for policy makers. Under the State's constitutional mandate to offer free public education, it has been assumed that in courses where students receive secondary credit, the cost of the materials should be borne by the State. Furthermore, it has generally been assumed that the costs of these instructional materials would be higher than in courses offered only for secondary credit. Up until this current year, a percentage of state funds available for instructional materials has been retained at the state level for this purpose and then allocated to school districts on the basis of their dual enrollment. This past year the funding process was amended so that each district will receive a supplement to its instructional materials allocation based on the previous year's cost of instructional materials for dual enrollment courses. One of the recurring problems is that school districts are reimbursing the costs of instructional materials whose costs are determined by the community college. Indeed, if a cost reimbursement basis is used there are no incentives for the community college to show restraint in the selection of materials on the basis of cost.

Rather than continuing to adjust reimbursement procedures at the state level, it is believed that the provision of instructional materials can be more effectively addressed at the local level through collaborative arrangements between the districts and colleges. The present policy of withholding 5% of the instructional materials allocation will serve as a benchmark for future reference. This approach will also provide some constraints on community colleges from changing instructional materials too frequently or ordering exorbitantly costly materials.

Recommendation:

10. **Textbook allocations should be jointly determined by the district and the community college in their articulation agreement and funded locally.**

Prior to the 1987 legislative session, dual enrollment funding applied only to students enrolling in associate degree or bachelor's programs. Now that certificate programs are included under the dual enrollment provisions, dually enrolled students in vocational education courses are exempt from paying for materials and tools pertaining to education instruction. As with other instructional materials, this issue can best be addressed at the local level. For example, a community college might choose to maintain laboratory kits which would then be made available to dually enrolled and other students. Under present guidelines, postsecondary vocational education students must pay for some of the materials used in their course of study. Similar guidelines

for dually enrolled students would obligate the district to pay for materials required for the course, while optional materials would be the student's responsibility.

Recommendation:

11. Decisions on allocations for materials and tools used in dual enrollment vocational instruction can best be made by the institutions involved through the joint articulation agreement.

With regard to examination fees, the policy implemented following the 1987 legislative session of full underwriting of examination costs both preserves the state's constitutional guarantee of a free secondary education and discourages discrimination between college-bound and non-college-bound students.

Recommendation:

12. Because the fees for Advanced Placement and International Baccalaureate examinations have been factored into the cost of providing accelerated instruction, examination fees should be 100% underwritten by the school district.

CONCLUSION

The State of Florida is committed to the provision of articulated acceleration options because of their contribution to academic enrichment, providing breadth of curricular options and increased depth of study in a particular subject, and because of their value in shortening the time necessary for a student to complete the requirements associated with the conference of a degree. The recommendations outlined above are intended to provide funding procedures that offset the cost of providing each form of instruction without making any form of instruction financially advantageous to either school districts or community colleges.

APPENDIX A

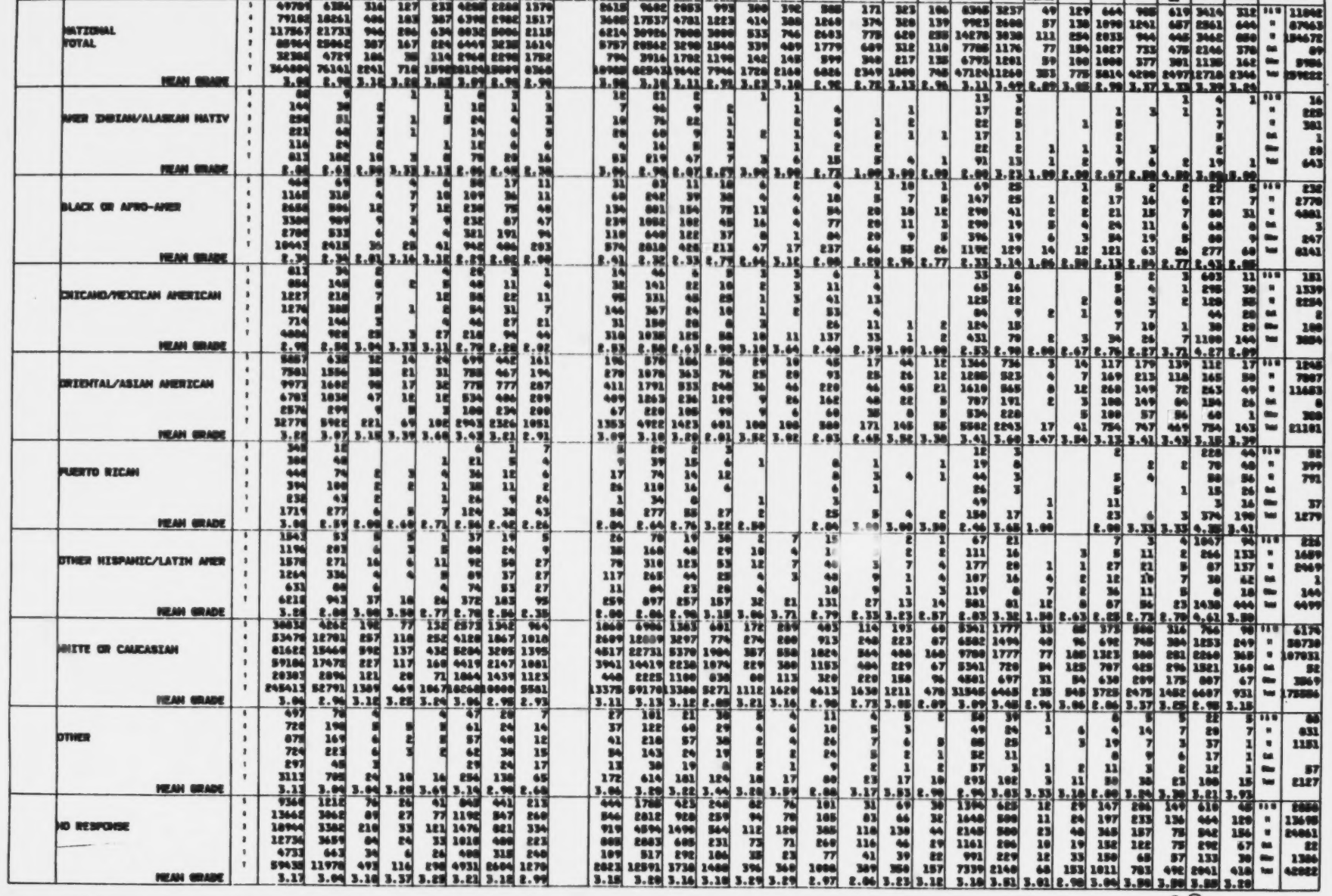
1987 ADVANCED PLACEMENT PROGRAM:

NATIONAL AND FLORIDA SUMMARY COMPARISONS

Advanced Placement Program®
THE COLLEGE BOARD

NATIONAL TOTAL: ALL CANDIDATES
AP GRADE DISTRIBUTIONS BY TOTAL AND ETHNIC GROUP

MAY, 1987



Advanced Placement Program®
THE COLLEGE BOARD

FLORIDA: ALL CANDIDATES
AP GRADE DISTRIBUTIONS BY TOTAL AND ETHNIC GROUP

Administration Date: MAY, 1987

CODE	NAME	AP GRADE	TOTAL EXAMS	NUMBER OF CANDIDATES FOR EACH EXAMINATION																												NUMBER OF CANDIDATES AT EACH LEVEL	
	FLORIDA TOTAL	5	26066	250	12	25	29	145	81	63		144	437	180	34	2	15	47	11	6	1	473	99		5	27	25	5	514	54	562	
		4	40846	848	17	38	64	266	130	93		233	922	383	39	10	6	94	11	10	6	532	55	7	9	69	51	5	179	79	6471	
		3	70621	1258	54	45	97	454	298	140		412	1912	578	98	9	10	183	26	33	6	894	48	16	28	158	65	3	199	54	9429	
		2	67886	2033	48	28	34	585	238	137		448	1588	298	71	14	29	168	22	18	9	623	28	16	22	105	59	2	197	19		
		1	38771	681	32	4	21	418	261	225		88	483	185	115	12	38	98	13	21	41	865	23	17	17	189	49	10	132	15	433	
	MEAN GRADE		243199	4982	185	132	245	1788	1000	666		1314	5254	1456	349	47	96	574	83	80	63	3387	245	56	81	540	249	25	1221	223	16895	
			2.79	2.62	2.59	3.33	3.19	2.56	2.54	2.45		2.94	2.89	2.89	2.44	2.49	2.26	2.74	2.82	2.63	1.68	2.74	3.76	2.23	2.36	2.33	2.78	2.72	3.61	3.64		
		5	7			1						1	3									1							1			
		4	6					1				2	2									1									9	
	AMER INDIAN/ALASKAN NATIV	3	7	2				1					3													1						12	
		2	13	4				1		1		2	3	1								1										
		1	3	1																		2										
	MEAN GRADE		36	7		1		3		1		5	11	1								5				1			1		21	
			3.03	2.14		5.00		3.00		2.00		3.40	3.45	2.00								2.60				3.00			5.00			
		5	24	2		2	1	5		1		1	4					1				2	2				1		2		32	
		4	77	13	1			4	2	3		9	10	7	5			3				7	1			1	1		2		301	
	BLACK OR AFRO-AMER	3	217	29	1	3	3	15	4	2		15	63	22	5			10	1			32	2			1			7		444	
		2	375	106	3	1	1	19	9	8		27	111	15	4		1	13				39		2		5	1		10			
		1	398	66	4	1		44	28	12		16	60	30	4			31			1	53	1	2		24	1		10		28	
	MEAN GRADE		1083	216	9	7	5	87	45	26		68	254	74	18		1	58	1		1	133	6	4		33	4		31		808	
			2.05	1.90	1.89	3.14	3.20	1.93	1.68	1.96		2.29	2.20	2.08	2.61		2.00	1.79	3.00		1.00	1.99	3.50	1.50		1.30	3.00		2.23			
		5	9										2									3							4			
		4	8	1						1			1									1	1						3		12	
	CHICANO/MEXICAN AMERICAN	3	11	2			2	1					3	1	1														1		27	
		2	15	2									6	2				1				3							1			
		1	12	2			1	2	1	1		1	1	1					1											2		3	
	MEAN GRADE		55	7			3	3	1	2		1	12	4	1			1	1			7	1						11		42	
			2.76	2.29			2.33	1.67	1.00	2.50		1.00	2.92	2.00	3.00			2.00	1.00			3.57	4.00						3.55			
		5	137	16		1	1	11	7	3		6	14	8	2					1		48	9			1	3		5	1	26	
		4	288	41		3	3	15	15	4		3	45	11				5	1			36	5			7	6		4	1	273	
	ORIENTAL/ASIAN AMERICAN	3	314	45	3	2	1	19	30	6		11	66	33	5			5				59	3	1		8	6	2	8	1	369	
		2	309	85	3	1	1	30	25	8		19	48	18	7			4		1	1	39	2			6	7		3	1		
		1	154	23			1	11	14	11		1	13	3	7	1	2			2		47	3			9	2	1	5		13	
	MEAN GRADE		1121	210	6	7	7	86	93	32		40	186	73	21	1	2	14	1	4	1	229	22	1		31	24	3	25	4	681	
			2.87	2.72	2.50	3.57	3.29	2.83	2.74	2.38		2.85	2.99	3.04	2.19	1.00	1.00	3.07	4.00	2.25	2.00	3.00	3.68	3.00		2.52	3.04	2.33	3.04	3.50		
		5	64	1									5									1	1						56		10	
		4	38	7				1	1	2		1	3	3				2											15	3	77	
	PUERTO RICAN	3	53	14		1		5	1	1		2	8	3	2			4				5							3	2	116	
		2	67	11	1	1	1	9				3	20	3	2			3				9							2	2		
		1	47	7	1			8	2	3			6	3		1		2				12				2					10	
	MEAN GRADE		269	40	2	2	1	23	4	8		6	42	12	4	1		11				27	1			2			76	7	213	
			3.02	2.60	1.50	2.50	2.00	1.96	2.25	2.50		2.67	2.55	2.50	2.50	1.00		2.55				1.85	5.00			1.00			4.64	3.14		
		5	442	9	2	4	1	6	3	3		7	19	2	1			6	3			27	11			2		1	292	43	79	
		4	388	42	1	2	4	15	6	4		11	42	16	7	2		11	1			44	4		1		4		43	48	442	
	OTHER HISPANIC/LATIN AMER	3	453	62	4	3	1	25	15	10		28	98	45	12			21		1	1	64	3	1		10	8		12	29	641	
		2	359	82		2	1	32	10	5		39	70	16	6	1	2	19	1		1	37	2	4		6	4			11		
		1	241	20	3		1	33	24	14		5	23	13	10	3		7	2		1	37	1	7		22	6	1	1	7	48	
	MEAN GRADE		1883	215	10	11	8	111	66	36		90	252	92	36	6	2	64	7	1	3	209	21	12	1	40	22	2	348	130	1202	
			3.19	2.71	2.90	3.73	3.38	2.36	2.18	2.36		2.73	2.86	2.76	2.53	2.17	2.00	2.84	3.29	3.00	2.00	2.96	4.05	1.50	4.00	1.85	2.45	3.00	4.80	3.79		
		5	1579	181	8	14	21	102	63	51		118	339	79	22	2	14	32	7	2		340	59		5	23	16	2	78	9	317	
		4	2911	623	10	23	46	198	87	67		186	707	236	28	7	4	62	8	9	6	381	36	7	8	56	33	4	78	9	4841	
	WHITE OR CAUCASIAN	3	5287	937	38	26	74	329	215	186		312	1486	482	51	6	8	121	21	28	5	650	34	14	25	107	44		149	11	6787	
		2	4821	1515	26	15	26	368	157	101		308	1149	191	44	11	26	99	17	9	6	440	13	9	21	73	41	1	158	5		
		1	2588	482	28	1	13	273	168	155		50	258	118	79	5	32	33	10	19	34	622	15	4	15	113	39	8	99	3	242	
	MEAN GRADE		178908	3658	102	79	188	1278	682	488		966	3931	1026	216	31	84	347	63	67	51	2441	157	34	74	372	173	15	554	37	11877	
			2.77	2.64	2.61	3.43	3.28	2.68	2.61	2.50		3.02	2.93	2.97	2.36	2.68	2.31	2.89	2.76	2.49	1.67	2.74	3.71	2.71	2.55	2.47	2.69	2.40	2.75	3.43		
		5	23	1			1	2	1				4		4			2				3	1						4		2	
		4	27	8	1	1	2	1					4	3	2							1					1	1	2		51	
	OTHER	3	48	9		1			2				10	6	3			2	2			3	1			1			1		75	
		2	64	12		2		2	3	1		6	17	7		1		3	1		1	4	1				1		2			
		1	36	5	1			9	2	1		4	2		1			1			1	4		1	3				1		4	
	MEAN GRADE		198	35	2	4	3	14	8	2		10	37	16	10	1		8	3		2	15	3		1	3	2	1	10		132	
			2.67	2.66	2.50	2.75	4.33	1.93	2.38	1.50		1.68	2.76	2.75	3.00	2.00		2.00	2.67		1.50	2.67	3.33		1.00	1.00	3.00	4.00	3.60			
		5	321	48	2	3	4	19	7	5		11	47	11	5		1	6	1	3	1	48	16			1	5	2	80	3	96	
		4	484	113	4	1	9	31	19	12		21	100	27	5	1		11	1	1		61	8			5	6		32	18	745	
	NO RESPONSE	3	768	150	8	9	14	59	29	21		44	175	66	11	3	2	20	2	4		73	5		3	23	7	1	18	11	988	
		2	685	216	7	6	4	44	26	13		49	156	37	8	1		18	3			51	2	1	1	15	5	1	21	5		
		1	418	75	3	2	3	38	38	20		3	41	17	14	2	4	16			4	88	3	4	1	14	1		14	5	93	
	MEAN GRADE		2644	594	24	21	36	191	111	79		128	519	158	43	7	7	71	7	8	5	321	34	5	5	58	24	4	165	37	1922	
			2.84	2.71	2.79	2.84	3.08	2.73	2.52	2.41		2.91	2.92	2.84	2.51	2.43	2.14	2.62	3.00	3.00	1.80	2.78	3.94	1.20	2.40	2.38	3.30	3.75	3.87	3.38		

Advanced Placement Program®
THE COLLEGE BOARD

NATIONAL TOTAL: FEMALES
AP GRADE DISTRIBUTIONS BY TOTAL AND ETHNIC GROUP

Administration Date: MAY, 1987

CODE	NAME	AP GRADE	TOTAL EXAMS	MEXICAN AMERICAN	PUERTO RICAN	OTHER HISPANIC/LATIN AMER	AMER INDIAN/ALASKAN NATIV	BLACK OR AFRO-AMER	ORIENTAL/ASIAN AMERICAN	CHICANO/MEXICAN AMERICAN	WHITE OR CAUCASIAN	OTHER	NO RESPONSE	NUMBER OF CANDIDATES AT EACH LEVEL
	NATIONAL TOTAL	5	28288	2533	297	55	138	1811	486	78	1333	5612	661	628	217	288	196	53	148	49	2616	762	19	54	78	88	53	2195	196	" "	4626
		4	35881	7062	278	105	233	2896	751	150	2030	10459	1781	844	291	289	469	122	147	71	3934	765	34	62	194	189	188	1540	398	"	42173
		3	58883	10864	617	111	415	3995	1577	347	3614	18688	3544	2861	351	371	1180	290	266	114	6113	1814	67	118	484	175	73	2988	586	"	88293
		2	45012	13147	243	95	156	3631	1193	295	3528	12181	1687	1848	248	223	881	382	131	58	5428	445	37	78	293	186	86	1283	233	"	38
		1	16417	2789	109	21	63	1878	953	442	451	2884	994	818	87	69	341	156	85	54	3144	489	26	48	353	183	56	783	89	"	2810
	MEAN GRADE		175681	36395	1446	387	997	14283	4880	1312	10956	48864	8667	5393	1186	1071	2978	923	777	338	19255	3475	183	368	1402	724	368	7719	1422		129880
		5	36	4				2			5	13	1								8	1						4	1	" "	7
		4	64	13	2		1	4		1	4	24	4	2		1	1				6	1								"	192
	AMER INDIAN/ALASKAN NATIV	3	122	22	2		3	11	2	1	5	53	5			1		1			7			1	2			6		"	196
		2	113	28	3	1		5	2	1	10	37	7	1		1	2	1	1	1	7	1						4		"	1
		1	53	13				4	1	3	3	7	5	2		1					8	1						2		"	8
	MEAN GRADE		388	80	7	1	4	28	5	6	27	134	22	5		4	3	2	1	1	33	4		2	2			16	1		316
		5	228	37	4	1	2	21	5		16	55	8	12	2	1	1	1	7	1	22	9		1	2			16	4	" "	123
		4	607	160	2	3	4	55	7	3	37	171	28	24	4	2	6	1	5	3	61	8	1	1	3	1		19	6	"	1682
	BLACK OR AFRO-AMER	3	1614	289	9	3	9	152	33	7	93	558	85	48	11	4	32	9	9	7	148	17		1	8	5	2	56	19	"	3008
		2	2134	597	5	1	4	155	48	11	172	713	62	28	14	1	52	11	8	2	164	11	4	3	8	6	3	44	7	"	
		1	1790	385	4	1	2	228	110	30	84	437	82	25	6	1	63	13	4	3	225	10	5	2	22	10	2	59	7	"	144
	MEAN GRADE		6373	1438	24	9	21	611	203	51	402	1934	257	137	37	9	154	35	33	16	628	55	10	6	43	22	7	194	43		5034
		5	804	15	1		1	6			5	24	2	2	2	2	1				6	2						425	11	" "	81
		4	426	58	4		2	19	3		13	88	11	8	1	2	5	2			21	5						165	23	"	763
	CHICANO/MEXICAN AMERICAN	3	641	109	2		7	31	4	1	62	283	17	18	1		15	5			45	10		1	3	1	1	78	35	"	1270
		2	708	220	2			29	13	1	92	289	10	8	1		24	2			41	2	2	1	1	2		25	23		
		1	407	106	1		1	29	14	5	16	88	19	4	1		13	6	1		62	6			1	2		29	12		73
	MEAN GRADE		2686	508	12		11	113	34	7	188	694	59	40	6	4	58	15	1		175	25	2	2	6	6	1	705	104		2187
		5	2126	261	23	8	15	263	93	15	104	337	60	39	19	2	23	4	23	7	481	215	1	5	19	23	16	62	18	" "	481
		4	3268	683	24	11	18	329	148	31	142	636	144	51	18	10	26	8	18	5	576	163	3	5	32	44	29	98	21	"	3681
	ORIENTAL/ASIAN AMERICAN	3	4628	763	34	10	16	488	273	69	218	1828	228	159	24	21	93	15	22	11	715	282	6	5	77	38	13	148	28	"	5588
		2	3316	922	28	4	8	286	162	53	226	686	119	88	5	13	91	21	8	1	325	73		2	36	39	15	95	18	"	4
		1	1185	167	4	4	2	108	83	57	37	98	58	57	6	3	28	19	3	3	245	96		1	39	15	9	43		"	159
	MEAN GRADE		14515	2796	135	37	84	1386	759	225	727	2777	611	384	72	49	261	67	66	27	2342	749	18	18	283	153	82	446	77		9888
		5	176	4				1			1	8		2							1							143	16	" "	29
		4	168	25				7	1		5	22	5	5	1		2			1	5	4						51	26	"	224
	PUERTO RICAN	3	239	37	2	2	2	16	2		11	41	4	7			6	1	2		26							44	36	"	421
		2	226	57	1	1		18	4		20	71	9	3			2				12				2			7	13		
		1	108	16	1		1	17	4	1		14	5		1		2				27				3			1	7		18
	MEAN GRADE		898	139	4	3	3	59	11	1	37	156	23	17	2		12	1	2	1	71	4			5			246	98		692
		5	857	10	3	1	1	12	4		13	38	3	20	1	5	10		1		24	3			2			439	59	" "	122
		4	618	87	4	1	3	48	7	1	22	128	18	18	7	1	8	1	1	1	39	2		2		2		154	82	"	857
	OTHER HISPANIC/LATIN AMER	3	822	134	12	1	4	44	12	4	39	197	68	34	8	5	24	1	3	3	76	9		6	3	1		49	93	"	1383
		2	645	178	3	2	5	46	16	3	64	154	21	17	4	2	18	6		1	45	6	2	1	2	1		13	43		1
		1	317	48	3		2	48	21	5	6	41	17	17	2		5	4	1	2	55	2	5	2	10	6		5	10		67
	MEAN GRADE		3259	457	25	5	15	182	60	13	144	550	116	106	22	13	65	12	6	7	239	22	7	4	27	13	2	860	287		8430
		5	12344	1668	129	31	94	1134	225	47	951	4868	433	384	124	150	128	37	79	25	1636	390	14	34	48	41	26	488	62	" "	2585
		4	24434	5440	171	78	158	1898	446	92	1484	7762	1222	539	198	148	339	74	188	39	2584	431	25	43	121	96	54	755	161	"	28206
		3	40651	7127	392	78	288	2596	1003	212	2641	13748	2442	1411	241	283	786	298	174	69	4188	681	48	84	382	185	46	1378	216	"	55065
		2	31318	9253	142	78	113	2538	776	185	2464	8543	1146	737	166	173	554	221	96	34	2358	272	24	64	296	119	52	928	93	"	27
		1	10104	1689	72	12	37	1169	687	285	237	1106	626	589	47	55	177	96	64	38	2049	292	11	27	215	58	34	488	32	"	1739
	MEAN GRADE		118873	25177	906	261	690	9335	3057	821	7777	35227	5869	3660	768	809	1984	636	513	285	12807	1986	122	252	804	492	212	3949	564		88342
		5	198	28	5		1	18	5		9	55	7	16	2	2	1	2	1		19	6						14	1	" "	34
		4	265	62	1	5	2	22	4		14	64	10	21	3	3	7	1			17	1		3		1		12	4	"	347
	OTHER	3	394	75	6		2	24	10	1	19	119	22	30	1	1	11	2	4	2	31	4			2	3	1	23	1	"	547
		2	348	96	3	3	2	26	8	1	37	84	11	14	3		15	3			21	5			1	3	1	8	1	"	
		1	128	38	2			16	5	4	8	13	9	3	1	1	3		1	2	19		1	1	2			7			22
	MEAN GRADE		1323	291	15	8	7	106	32	6	87	335	67	84	10	7	37	8	6	4	187	16	1	4	8	7	2	64	7		980
		5	3885	498	44	14	18	355	74	16	229	1014	147	153	67	38	32	9	37	16	422	136	4	14	15	16	11	394	32	" "	1844
		4	6039	1334	58	15	48	522	135	22	389	1580	340	178	67	41	66	35	31	22	625	150	5	8	37	33	17	286	75	"	6391
	NO RESPONSE	3	8908	1508	138	17	84	721	238	52	526	2669	681	384	65	56	133	48	52	22	885	171	13	26	84	28	9	322	78	"	11881
		2	6218	1804	54	13	24	528	164	48	443	1694	302	152	47	33	123	37	18	11	455	75	5	8	38	24	14	159	35	"	5
		1	2333	365	22	4	18	257	108	32	68	289	173	121	23	8	58	10	11	6	474	82	4	14	53	20	11	78	21	"	588
	MEAN GRADE		27369	5509	316	63	192	2383	719	182	1567	7147	1643	958	269	176	484	147	149	77	2861	614	31	79	227	121	62	1239	241		20189
		3.10	2.96	3.14	3.35	3.13	3.00	2.87	2.91		3.13	3.20	2.99	3.09	3.40	3.39	2.77	2.86	3.44	3.48	3.02	3.38	3.00	3.00	2.64	3.01	3.05	3.01	3.26		

A-3

Advanced Placement Program®
THE COLLEGE BOARD

FLORIDA: FEMALES
AP GRADE DISTRIBUTIONS BY TOTAL AND ETHNIC GROUP

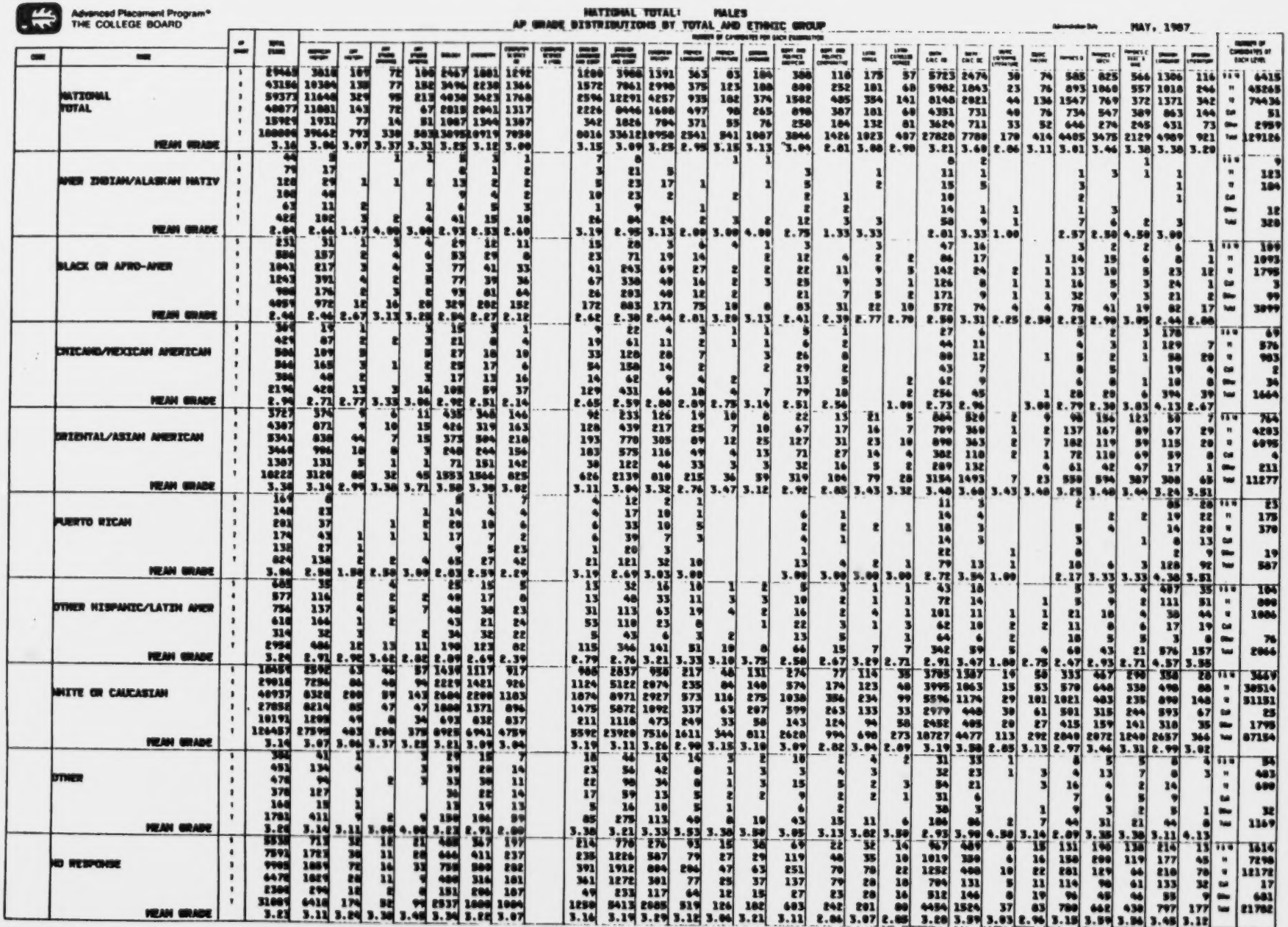
MAY, 1987

CODE	NAME	AP GRADE	TOTAL EXAMS	AMERICAN HISTORY	ART HISTORY	ART STUDIO GENERAL	ART STUDIO DRAWING	BIOLOGY	CHEMISTRY	COMPUTER SCIENCE AB	COMPUTER SCIENCE A	ENGLISH LANGUAGE AND COMP	ENGLISH LITERATURE AND COMP	EUROPEAN HISTORY	FRENCH LANGUAGE	FRENCH LITERATURE	GERMAN LANGUAGE	GOVT AND POLITICS AMERICAN	GOVT AND POLITICS COMPARATIVE	LATIN VERGIL	LATIN CATULLUS HORACE	MATH CALC AB	MATH CALC BC	MUSIC LISTENING LITERATURE	MUSIC THEORY	PHYSICS B	PHYSICS C MECH	PHYSICS C ELEC & MAG	SPANISH LANGUAGE	SPANISH LITERATURE	NUMBER OF CANDIDATES AT EACH LEVEL
	FLORIDA TOTAL	1	1867	102	9	6	16	44	13	4		78	239	26	17	2	9	12	3	4		126	10		3	2	1		310	31	257
		2	1822	372	9	16	36	111	32	6		134	575	92	25	9	3	37	2	2	3	173	10	5	3	11	5		101	50	3377
		3	3519	582	34	28	63	237	88	16		245	1142	258	60	8	5	94	9	17	4	389	15	9	16	33	16		126	36	4942
		4	3668	1115	26	17	18	306	87	20		291	949	133	47	7	16	86	10	5	6	294	7	9	11	31	15		130	16	
		5	2059	389	18	2	13	284	107	48		54	288	101	89	3	17	55	4	8	23	394	15	12	6	87	19	2	89	12	291
			12127	2568	96	61	146	982	327	94		802	3113	607	238	29	50	284	28	36	36	1376	57	35	39	164	96	2	764	145	8777
	MEAN GRADE		2.68	2.49	2.64	3.11	3.16	2.31	2.26	1.91		2.86	2.99	2.69	2.38	3.00	2.42	2.52	2.64	2.69	1.64	2.52	2.88	2.20	2.64	1.84	2.10	1.00	3.53	3.30	
		1	5									1	2									1							1		
		2	4					1				1	2																		
	AMER INDIAN/ALASKAN NATIV	3	6	2									3													1					4
		4	8	2								2	2	1								1									9
		5	1																			1									
			24	4				1				4	9	1								3				1			1		13
	MEAN GRADE		3.17	2.50				4.00				3.25	3.44	2.00								2.67				3.00			5.00		
		1	8	1				1				1	2										1						2		22
		2	41	4				2	1			7	16	3	3			4				4							1		189
	BLACK OR AFRO-AMER	3	144	14	1	2	2	14	1			7	48	18	2			8				20	1			1			5		292
		4	246	63	2		1	14	4			23	85	8	2			10				23		2		1			8		
		5	265	49	3			35	17	3		15	39	20	2			25			1	31	1	2		13			9		17
	MEAN GRADE		704	131	6	2	5	66	23	3		53	190	49	9			43			1	78	3	4		15			25		520
		1	2										1																1		
		2	3																										3		6
	CHICANO/MEXICAN AMERICAN	3	7	1			1	1					3																	1		13
		4	4	2			1	1					3	1				1											1		
		5	1																1	1									1		2
	MEAN GRADE		24	3			2	2					7	1				1											7		21
		1	51	4			1	4	3	1		3	9	1	1					1		21	1						1		11
		2	93	18		2	1	6	5			2	24	5				1				19	1			3	2		3	1	130
	ORIENTAL/ASIAN AMERICAN	3	139	19	1			11	10	2		6	35	14	3			3				25		1		1	3		4	1	179
		4	156	47	2	1		19	10	3		13	27	8	3			2				18	1				1		2	1	
		5	68	10				7	4	2			6	1	1		1					10	1			1			1		3
	MEAN GRADE		589	98	3	3	2	47	32	8		24	101	29	13		1	6		3		101	4	1		8	7		15	3	325
		1	32										2																30		3
		2	18	5					1				1																9	2	48
	PUERTO RICAN	3	32	9				2				2	6	1	2			3				3							2	2	67
		4	42	5	1	1		5				3	16		2			1				4							2	2	
		5	25	4	1			6	1				4	2		1		2				3				1					4
	MEAN GRADE		149	23	2	1		13	2			5	29	3	4	1		6				10				1			43	6	122
		1	233	2	2	1	1	1				5	7		1			3				9	1						177	23	43
		2	148	16	1	1	2	5	1			8	31	3	6	2		4				14			1				23	30	229
	OTHER HISPANIC/LATIN AMER	3	247	29	4			14	3			17	60	29	7			13		1	1	32	3			3	3		8	20	367
		4	182	38		1	1	17	7	1		22	43	6	3	1	2	8	1		1	18	1	2							
		5	141	11	2		1	21	12	3		4	11	10	9	1		1			1	21	1	5		15	5		1	6	10
	MEAN GRADE		951	96	9	3	5	58	23	4		56	152	48	26	4	2	29	1	1	3	94	6	7	1	18	8		289	80	687
		1	587	78	7	4	14	31	8	3		63	189	28	18	2	8	8	2	1		77	7		3	1	1		44	6	128
		2	1284	268	6	11	26	86	28	6		104	437	78	12	6	3	26	2	2	3	118	7	5	2	7	2		41	6	2369
	WHITE OR CAUCASIAN	3	2569	440	22	13	58	162	65	14		180	884	162	36	6	5	59	9	15	3	281	11	8	14	21	10		95	4	3480
		4	2645	841	15	8	13	226	59	16		199	679	89	32	6	14	53	9	5	5	203	4	4	11	25	12		113	4	
		5	1328	267	10	1	7	180	68	36		31	121	68	62		13	16	3	6	19	280	10	2	6	46	13	2	67	2	119
	MEAN GRADE		8405	1894	68	37	116	685	212	75		577	2310	409	152	28	43	162	25	29	30	959	39	19	36	100	38	2	340	22	6896
		1	8					1	1				1		1							2							2		1
		2	11	4		1	1						2	1															2		30
	OTHER	3	23	4									7	3	1			2				1							1		33
		4	32	7		2		2	1			5	9	2				1				1							2		
		5	17	3	1			5	1			2	1								1	2				1					2
	MEAN GRADE		91	20	1	3	1	8	3			7	20	5	1			3			1	6				1			7		66
		1	141	17		1		6	1			5	26	5	4		1	1	1	2		16				1			52	2	49
		2	228	57	2	1	6	11	4			12	62	3	3	1		6				18	2			1	1		19	11	372
	NO RESPONSE	3	358	62	4	5	18	33	9			33	96	28	7	2		6		1		27			2	6			10	9	582
		4	341	112	6	4	3	23	6			24	85	10	5			10				26	1	1		5	2		10		
		5	210	43	1	1	4	29	12	4		2	26	8	10	1	3	11			1	38	2	3		7			6	4	34
	MEAN GRADE		1270	291	15	12	23	102	32	4		76	295	62	29	4	4	34	1	3	1	125	5	4	2	20	3		97	26	989
			2.79	2.63	2.68	2.75	2.78	2.43	2.25	1.88		2.92	2.92	2.66	2.52	2.75	2.00	2.29	5.00	4.33	1.00	2.58	2.40	1.25	3.00	2.20	2.67		4.04	3.27	

Advanced Placement Program®
THE COLLEGE BOARD

NATIONAL TOTAL: MALES
AP GRADE DISTRIBUTIONS BY TOTAL AND ETHNIC GROUP

MAY, 1987



CODE	RACE	# GRADES	TOTAL EXAMS	NUMBER OF CANDIDATES PER EACH EXAMINATION																										NUMBER OF CANDIDATES AT EACH LEVEL	
	NATIONAL TOTAL	1	29445	3815	169	72	186	2457	1881	1242		1280	3466	1391	563	63	184	388	110	175	57	5723	2474	30	74	585	825	566	1306	116	6415
		2	43156	10384	138	77	182	3496	2238	1366		1572	7861	2998	375	123	188	800	252	181	68	5982	1863	23	76	893	1060	557	1818	246	45265
		3	59373	11648	329	99	213	4038	3423	1768		2596	12291	4257	935	182	374	1582	485	354	141	8148	2821	44	136	1547	769	372	1371	342	74436
		4	48877	11883	143	72	67	2818	2941	1317		2226	8446	1688	497	98	265	898	387	181	68	4381	731	48	76	734	547	389	863	144	51
		5	15929	1931	77	14	81	1087	1344	1387		342	1826	784	371	85	76	258	184	132	81	3624	711	33	52	646	274	245	431	73	2959
		MEAN	188000	39662	791	330	583	13895	10919	7050		8016	33612	10958	2541	541	1087	3846	1426	1023	407	27820	7788	170	414	4485	3475	2129	4989	921	129126
		MEAN GRADE	3.14	3.04	3.07	3.37	3.31	3.25	3.12	3.00		3.15	3.09	3.25	2.95	3.15	3.13	3.04	2.81	3.00	2.90	3.21	3.49	2.86	3.11	3.01	3.46	3.38	3.38	3.29	
	AMER INDIAN/ALASKAN NATIV	1	44	8		1	1	8	1	1		7	8			1	1					8	2					1			9
		2	79	17			6	1	2			3	21	5						1		11	1			1	3	1	1		123
		3	128	29	1	1	2	13	2	2		5	23	17	1		1	5		2		15	5			3		1			184
		4	100	48				9	4	2		10	23	2		2		2	1			10				2		1			
		5	63	11	2		1	4	5	3		1	9		1			2	2			14	1	1		1	3				12
		MEAN	422	102	3	2	4	41	15	10		26	84	24	2	3	2	12	3	3		58	9	1		7	6	2	3		320
		MEAN GRADE	2.84	2.64	1.67	4.00	3.00	2.93	2.33	2.60		3.19	2.95	3.13	2.00	3.00	4.00	2.75	1.33	3.33		2.81	3.33	1.00		2.57	2.80	4.50	3.00		
	BLACK OR AFRO-AMER	1	231	31	1	2	4	29	12	11		15	28	3	6	4	1	3		3		47	14			3	2	2	6	1	189
		2	886	157	2	4	6	83	29	8		23	71	19	14		2	12	4	2	2	86	17		1	14	15	6	8	1	1093
		3	1041	217	3	4	5	77	41	33		41	243	69	27	2	2	22	11	9	5	142	24	2	1	13	10	5	23	12	1795
		4	1243	391	4	2	5	77	39	36		67	330	48	16	2	3	25	9	3	1	126	8	1	1	14	5	3	24	1	3
		5	988	176	2	3	2	93	81	64		26	283	40	12	2		21	7	5	2	171	9	1	1	32	9	3	21	2	99
		MEAN	4059	972	15	16	28	329	202	152		172	883	171	75	10	8	83	31	22	10	572	74	4	4	78	41	19	82	17	3899
		MEAN GRADE	2.66	2.66	2.67	3.13	3.25	2.96	2.27	2.12		2.62	2.30	2.44	2.01	3.20	3.13	2.41	2.39	2.77	2.70	2.80	3.31	2.25	2.50	2.23	2.90	3.05	2.66	2.00	
	CHICANO/MEXICAN AMERICAN	1	364	19	1		3	15	5	1		9	22	4	3	1	1	5	1			27	6			5	2	1	178		69
		2	429	67	2	2	3	21	8	4		19	61	11	2	1	1	6	2			44	11			4	3	1	129	7	575
		3	508	109	3		5	27	18	10		33	128	28	7		3	26	8			88	12		1	5	2	1	58	20	983
		4	366	165	3	1	2	25	17	6		54	158	14	2		2	29	2			43	7			8	5		19	4	2
		5	306	48	2		3	17	11	16		14	62	9	4	2		13	5		2	62	9			6	8	1	10	8	34
		MEAN	2196	428	13	3	14	108	59	37		129	431	66	18	4	7	79	18		2	256	45		1	28	20	6	394	39	1664
		MEAN GRADE	2.96	2.71	2.77	3.33	3.06	2.92	2.51	2.14		2.65	2.59	2.80	2.89	2.75	3.14	2.51	2.54		1.00	2.73	2.96		3.00	2.79	2.30	3.83	4.13	2.67	
	ORIENTAL/ASIAN AMERICAN	1	3727	374	9	6	11	435	348	144		92	233	126	19	10	8	22	15	21	5	884	826	2	9	98	194	123	58	7	744
		2	4307	871	9	10	15	426	319	163		128	439	217	25	7	10	67	17	16	7	709	360	1	2	137	167	89	67	29	4203
		3	5341	838	44	7	15	371	304	210		193	778	305	89	12	25	127	31	23	10	898	363	2	7	182	119	89	115	20	4995
		4	3448	906	18	8	3	248	264	154		183	575	116	49	4	13	71	27	14	4	382	110	2	1	72	110	69	59	8	4
		5	1387	131	5	1	1	71	181	142		38	122	46	33	3	3	32	16	5	2	289	132		4	61	42	47	17	1	211
		MEAN	18222	3128	88	32	45	1553	1344	825		626	2139	810	215	36	59	319	104	79	28	3154	1493	7	23	550	594	387	308	65	11277
		MEAN GRADE	3.36	3.14	2.99	3.38	3.71	3.58	3.38	3.02		3.11	3.04	3.32	2.76	3.47	3.12	2.92	2.85	3.43	3.32	3.48	3.68	3.43	3.48	3.28	3.48	3.44	3.24	3.51	
	PUERTO RICAN	1	164	8				8	1	7		4	12	2	1							11	3			2			85	26	25
		2	148	23			1	14	4	4		4	17	10	1			6	1			14	4				2	2	19	22	175
		3	201	37		1	2	25	10	6		6	33	10	5			2	2	2	1	18	3			8	4		14	28	379
		4	174	43	1	1	1	17	7	2		6	39	7	3			4	1			14	3			3		1	8	13	
		5	138	27	1			9	5	23		1	20	3				1				22		1		8			2	9	19
		MEAN	824	138	2	2	4	65	27	42		21	121	32	10			13	4	2	1	79	13	1		18	6	3	128	92	587
		MEAN GRADE	3.04	2.88	1.88	2.50	3.00	2.83	2.59	2.29		3.19	2.69	3.03	3.00			3.00	3.00	3.00	3.00	2.72	3.54	1.00		2.17	3.33	3.33	4.38	3.81	
	OTHER HISPANIC/LATIN AMER	1	685	35	2	4		25	15	5		13	32	16	10	1	2	5	3	1	1	43	10			5	3	4	487	35	184
		2	877	116	2	2	2	49	17	8		13	48	33	11	3	3	10	2	1	1	72	14		1	5	9	2	111	51	888
		3	754	137	4	5	7	48	30	23		31	113	63	19	4	2	16	2	4	1	101	11	1	1	21	10	4	38	44	1006
		4	618	144	1	2		43	21	24		53	118	23	8		1	22	3	1	3	62	10	2	2	11	8	6	17	19	
		5	316	32	3		2	34	32	22		5	43	6	3	2		13	5		1	64	6	2		18	5	3	3	8	76
		MEAN	2956	486	15	13	11	199	123	82		115	346	141	51	10	8	66	15	7	7	342	59	5	4	68	43	21	376	157	2864
		MEAN GRADE	3.24	2.91	2.92	3.62	2.82	2.89	2.69	2.39		2.79	2.76	3.21	3.33	3.10	3.75	2.58	2.67	3.29	2.71	2.91	3.47	1.80	2.75	2.47	2.93	2.71	4.57	3.55	
	WHITE OR CAUCASIAN	1	18459	2592	63	44	57	1436	1117	917		966	2837	950	217	48	131	274	77	114	35	3785	1587	19	58	353	447	298	358	28	3449
		2	29918	7294	86	48	94	2229	1421	926		1124	5122	2074	235	84	140	574	174	123	48	3995	1863	15	53	579	648	338	498	88	30514
		3	40937	8328	208	89	143	2684	2298	1183		1874	8971	2927	573	116	275	1038	386	234	99	5596	1174	29	101	1021	683	235	898	148	31181
		4	27858	8214	85	47	47	1888	1571	896		1475	5872	1092	337	63	207	599	263	133	33	2979	448	38	61	501	315	244	593	67	25
		5	10191	1208	49	8	34	693	832	837		211	1118	473	249	33	58	143	124	94	58	2452	485	20	27	415	159	141	318	35	1795
		MEAN	126457	27596	483	288	375	8925	6941	4759		5592	23920	7516	1611	344	811	2628	994	698	273	18727	4477	113	292	2849	2072	1240	2657	366	87154
		MEAN GRADE	3.14	3.07	3.04	3.37	3.25	3.21	3.09	3.04		3.19	3.11	3.26	2.99	3.15	3.10	3.09	2.82	3.04	2.89	3.19	3.58	2.85	3.13	2.97	3.46	3.31	2.99	3.02	
	OTHER	1	384	41	1		3	29	15	7		18	44	14	14	3	2	10	2	4	2	31	13	1		8	5	5	8	4	54
		2	451	134	4		3	39	28	14		23	56	42	8	1	3	3	4	3		32	23	1	3	4	13	7	8	3	483
		3	478	94		2	3	33	36	11		22	98	34	8	1	3	15	5	2	3	84	21		3	16	4	2	14		699
		4	378	127	3			36	22	14		17	59	13	5	2	2	9	2	2	1	31	6			7	6	5	9		
		5	168	15	1			13	19	13		5	16	10	5	1		6	2			38	3		1	9	3	2	5	1	32
		MEAN	1781	411	9	2	9	150	106	89		85	278	113	49	8	10	43	15	11	6	186	86	2	7	44	31	21	44	8	1169
		MEAN GRADE	3.26	3.14	3.11	3.00	4.00	3.12	2.91	2.80		3.38	3.21	3.33	3.53	3.38	3.50	3.05	3.13	3.02	3.50	2.93	3.90	4.50	3.14	2.89	3.35	3.38	3.11	4.13	
	NO RESPONSE	1	5532	713	32	12	21	488	367	197		214	776	276	93	15	36	69	22	32	14	457	489	8	15	131	190	138	214	15	1614
		2	7592	1721	36	11	28	646	411	237		238	1226	587	79	27	29	119	48	35	10	1019	380	6	16	158	298	119	177	45	7298
		3	9905	1889	72	16	33	758	580	282		391	1912	884	294	47	63	251	78	78	22	1252	488	10	22	281	129	66	210	78	12172
		4	6478	1029	28	11	9	488	316	181		361	1272	381	77	25	37	137	79	28	10	704	131	5	11	114	98	61	133	32	17
		5	2306	294	12	2	6	151	206	107		49	233	117	64	12	15	27	23	28	16	312	146	8	19	96	48	46	55	9	681
		MEAN	31985	6418	179	52	99	2537	1880	1004		1258	5413	2085	819	126	182	603	242	201	80	4454	1524	37	83	780	642	430	797	177	21782
		MEAN GRADE	3.21	3.11	3.24	3.38	3.48	3.34	3.25	3.07		3.14	3.19	3.29	3.12	3.04	3.21	3.11	2.84	3.07	2.85	3.28	3.59	3.03	2.96	3.19	3.59	3.36	3.48	3.12	

A-5

Advanced Placement Program®
THE COLLEGE BOARD

FLORIDA: MALES
AP GRADE DISTRIBUTIONS BY TOTAL AND ETHNIC GROUP

NUMBER OF CANDIDATES FOR EACH EXAMINATION

MAY, 1987

CODE	NAME	AP GRADE	TOTAL EXAMS	ART HISTORY	ART STUDIO DRAWING	ART STUDIO GENERAL	BIOLOGY	CHEMISTRY	COMPUTER SCIENCE AB	COMPUTER SCIENCE A	ENGLISH LANGUAGE AND COMP	ENGLISH LITERATURE AND COMP	EUROPEAN HISTORY	FRENCH LANGUAGE	FRENCH LITERATURE	GERMAN LANGUAGE	GOVT AND POLITICS COMPARATIVE	GOVT AND POLITICS UNITED STATES	LATIN LITERATURE	LATIN VERGIL	MATH CALC AB	MATH CALC BC	MUSIC THEORY	PHYSICS B	PHYSICS C MECH	PHYSICS C ELEC & MAG	SPANISH LANGUAGE	SPANISH LITERATURE	NUMBER OF CANDIDATES AT EACH LEVEL	
		5	1537	148	3	19	12	101	68	59		66	198	74	17		6	34		8	2	1	347	89		2	25	24	5	204	25	385
		4	2248	475	8	14	28	155	98	87		99	345	211	14	1	1	57	9	8	3	3	359	45	2	6	58	44	5	77	29	3891
	FLORIDA	3	3532	667	20	25	33	216	209	132		167	766	321	38	1	5	88	17	16	2	5	805	33	7	12	117	49	3	73	18	4485
	TOTAL	2	3046	916	14	11	16	199	151	117		154	631	157	24	7	13	74	12	5	3		329	13	7	11	74	44	2	59	3	
		1	1815	211	14	2	8	134	154	176		26	195	83	26	9	21	35	9	13	18		471	8	5	11	182	38	8	43	3	218
	MEAN GRADE		12170	2417	59	71	97	805	680	571		512	2135	846	111	18	44	288	55	44	27		2011	188	21	42	376	193	23	456	78	8099
		5	2			1							1																		
		4	2									1																			5
	AMER INDIAN/ALASKAN NATIV	3	1					1															1								3
		2	5	2				1		1			1																		
		1	2	1																			1								
	MEAN GRADE		12	3		1		2		1		1	2										2								8
		5	16	1		2	1	4		1			2					1					2	1		1	1				10
		4	36	9	1			2	1	3		2	2	4	2			3					3	1			1	1		1		111
	BLACK OR AFRO-AMER	3	73	15		1	1	1	5	2		8	15	4	3			2	1				12	1						2		152
		2	129	43	1	1		5	5	8		4	26	7	2		1	3					16				4	1		2		
		1	129	16	1	1		9	11	9		1	21	10	2			6					22				13	1		1		11
	MEAN GRADE		378	84	3	5	2	21	22	23		15	66	25	9		1	15	1				55	3			18	4		6		284
		5	7										1										3							3		
		4	8	1						1			1										1	1								6
	CHICANO/MEXICAN AMERICAN	3	4	1			1							1	1																	14
		2	9	2									3	1				3														
		1	4					1	1	1		1		1																1		1
	MEAN GRADE		31	4			1	1	1	2		1	5	3	1								7	1						4		21
		5	86	12		1		7	4	2		3	5	7	1								27	8			1	3		4	1	15
		4	112	23		1	2	9	10	4		1	21	6				4	1				17	4			4	4		1		143
	ORIENTAL/ASIAN AMERICAN	3	175	26	2	2	1	8	20	4		5	31	19	2			2					34	3			7	3	2	4		190
		2	150	37	1		1	11	15	5		6	21	10	4			2		1	1		21	1			6	6		1		
		1	88	13			1	4	10	9		1	7	2	1	1	1						29	2			5	1	1			9
	MEAN GRADE		611	111	3	4	5	39	59	24		16	85	44	8	1	1	8	1	1	1		120	18			23	17	3	10	1	357
		5	32	1									3										1	1						26		7
		4	28	2				1		2		1	2	3				2												6	1	29
	PUERTO RICAN	3	21	5		1		3	1	3			2	2				1					2							1		49
		2	25	6			1	4					4	3				2					5									
		1	22	3				2	1	3			2	1									9				1					6
	MEAN GRADE		120	17		1	1	10	2	8		1	13	9				5					17	1			1			33	1	91
		5	209	7		3		5	3	3		2	12	2				3	3				18	10			2		1	115	20	36
		4	159	26		1	2	10	5	4		3	11	13	1			7	1				30	4				4		19	10	212
	OTHER HISPANIC/LATIN AMER	3	206	33		3	1	11	12	10		11	38	16	5			8					32		1		7	5		4	9	274
		2	177	44		1		15	11	4		17	27	10	3			11					19	1	2		6	4			2	
		1	100	9	1			12	12	11		1	12	3	1	2		6	2				16		2		7	1	1	1	2	22
	MEAN GRADE		851	119	1	8	3	53	43	32		34	100	44	10	2		35	6				115	15	5		22	14	2	138	30	544
		5	991	103	1	10	7	71	55	48		55	150	59	12		6	23	5	1			263	52		2	22	15	2	26	3	189
		4	1625	355	4	12	20	112	67	61		82	268	158	8	1	1	36	6	7	3		263	29	2	6	49	31	4	37	3	2192
	WHITE OR CAUCASIAN	3	2635	497	16	13	24	166	150	92		132	600	240	15		3	62	12	13	2		377	23	6	11	86	34		54	7	3276
		2	2176	674	11	7	13	142	98	85		101	470	102	12	5	12	46	8	4	1		237	9	5	10	48	29	1	45	1	
		1	1260	135	10		6	93	100	119		19	137	58	17	5	19	17	7	13	15		342	5	2	9	67	26	6	32	1	119
	MEAN GRADE		8687	1764	42	42	70	584	470	405		389	1625	617	64	11	41	184	38	38	21		1482	118	15	38	272	135	13	194	15	5776
		5	15	1			1	1					3		3			2					1	1						2		1
		4	16	4	1		1	1					2	3	1								1				1	1				21
	OTHER	3	17	3		1			2				3	3					2				2	1								42
		2	32	5				2	1			1	8	5		1		2	1		1		3	1			1					
		1	19	2				4	1	1		2	1		1			1					2			1	2			1		2
	MEAN GRADE		99	15	1	1	2	6	5	2		3	17	11	5	1		5	3		1		9	3		1	2	2	1	3		64
		5	179	23	2	2	3	13	6	5		6	21	6	1			5		1	1		32	16				5	2	28	1	47
		4	268	55	2		3	28	15	12		9	36	24	2			5	1	1			43	6			4	5		13	7	372
	NO RESPONSE	3	408	87	2	4	5	26	19	21		11	77	36	4	1	2	13	2	3			44	5		1	17	7	1	8	2	485
		2	343	103	1	2	1	21	28	13		25	71	19	3	1		8	3				25	1		1	10	3	1	11		
		1	194	32	2	1	1	9	18	23		1	15	8	4	1	1	5		3			50	1	1	1	7	1		8	1	48
	MEAN GRADE		1381	300	9	9	13	89	76	74		52	222	93	14	3	3	36	6	5	4		196	29	1	3	38	21	4	68	11	952

APPENDIX B

SITE AND TELEPHONE INTERVIEW QUESTIONNAIRE

SITE VISIT QUESTIONNAIRE
ARTICULATED ACCELERATION

I. What are the costs of offering accelerated programs?

1. FTE?
2. Faculty salary: high school instructors?
   community college instructors?
3. Transportation?
4. Instructional materials, lab fees, etc.?
5. Examination fees?
6. Vocational educational materials?

II. What are fiscal obstacles, or disincentives, to offering dual enrollment programs?

1. Fiscal implications of FTE funding formula?
2. Reimbursement policies of the state?
3. Other programs (AP?) more fiscally favorable?

III. What are other obstacles to offering dual enrollment programs?

1. 7-period day?
2. Level of student interest?
3. Administratively cumbersome?
4. Level of administrative commitment?

IV. How useful are the joint agreements with higher education institutions?

1. Clarify responsibilities?
2. Maintain instructional program standards?
3. Clarify/Instruct distribution of monies?

V. How are students selected and/or screened for DE and AP?

1. According to student interest? GPA?
2. Is selection procedure consistent among districts?
3. Do community colleges have input, or is it strictly a school district decision?
4. What is the impact on high school honors courses?

APPENDIX C

1986-87 COST SURVEYS OF ADVANCED PLACEMENT AND INTERNATIONAL BACCALAUREATE PROGRAMS

Advance Placement Program
1986-87 Cost Survey

Five districts were surveyed to determine the additional costs incurred to offer advanced placement courses. Survey instructions asked each district to submit a survey form for each advanced placement class conducted in the high schools with the largest and second largest AP programs. The survey form was designed to provide information on type of course, student participation, teacher cost, and additional costs of materials, equipment, and examinations.

Survey information for teacher costs were contrasted with teacher costs for the Basic Program, Grades 9-12 at each school to determine the teacher salary and benefit cost differential associated with advanced placement courses. Basic Program, Grades 9-12 costs for each surveyed school were obtained from the 1986-87 Program Cost Report.

The attached exhibit summarizes the response which provided data on classes for 346.82 FTE students and 21.0 FTE teachers. In aggregate, the additional costs per FTE student were: Teacher Salary and Benefits, $546; Other Costs, $676; Total $1,223. Pupil-teacher ratios were: AP, 16.52 to 1; Basic Grades 9-12, 17.52 to 1. Additional costs varied with the pupil-teacher ratio of each school from $8,211 to $281. Based on the 1986-87 Base Student Allocation of $2,013.10, the additional cost per FTE of $1,223 would equate to a supplement of .61 per FTE.

The aggregated costs per student were: Teacher Salary and Benefits, $109; Other Costs, $111 ; Total: $220. Based on the 1986-87 BSA, the additional costs per student of $220 would equate to a supplement of .11 per student.

ADVANCED PLACEMENT PROGRAM
1986-87 COST SURVEY

1	1 DISTRICT (AP SUMMARY)	2 SCHOOL	3 FTE STUDENTS	4 FTE TEACHERS	5 TOTAL OTHER COSTS/FTE	6 SAL & BEN DIFFERENTIAL (BASED ON FTE)	7 TOTAL ADD COSTS/FTE	8 TOTAL OTHER COSTS/STUDENT	9 SAL & BEN DIFF BASED ON STUDNT	10 TOTAL ADD COSTS/STUDENT	11 P:T RATIO FOR AP	12 P:T RATIO FOR PROG 103
2												
3												
4												
5	ORANGE	BOONE HIGH SCH	26.50	1.4	9933	89	464	62	18	80	18.93	17.99
6		WINTER PARK HS	33.17	2.4	25990	632	1416	131	126	257	13.82	17.36
7												
8	SEMINOLE	LAKE BRANTLEY	65.00	3.6	47855	442	1179	147	88	236	18.06	21.66
9		LAKE MARY HS	15.00	0.8	10046	351	1021	67	70	137	18.75	21.57
10												
11	HILLSBOROUGH	BRANDON HS	23.33	2.0	16623	1338	2058	119	268	386	11.67	17.16
12		CHAMBERLAIN HS	43.58	2.7	23646	2137	2679	88	427	515	16.14	17.14
13												
14	PINELLAS	COUNTRYSIDE HS	28.32	1.4	11280	-117	281	70	-23	47	20.23	16.92
15		DUNEDIN HS	34.17	1.8	14169	367	782	69	73	143	18.98	18.32
16												
17	ALACHUA	BUCHOLZ HS	34.33	2.6	38749	1316	2212	149	263	412	13.21	18.08
18		GAINESVILLE HS	43.42	2.3	44311	497	1517	149	99	249	18.88	18.23
19												
20												
21		SURVEY TOTAL	346.82	21.0	234611	546	1223	111	109	220	16.52	17.52

Source: Florida Department of Education, Bureau of Management Systems and Services

International Baccalaureate Program
1986-87 Cost Survey

Three districts were surveyed to determine the additional cost incurred to offer the International Baccalaureate Program. The survey form was designed to provide information on type of course, student participation, teacher cost, and additional costs of materials, equipment, and fees.

Survey information for teacher costs were contrasted with teacher costs for the Basic Program Grades 9-12 at each school to determine the teacher salary and benefit cost differential (per FTE student) associated with the IB program. Basic Program, Grades 9-12 costs for each surveyed school were obtained from the 1986-87 Program Cost Report.

The attached exhibit summaries the response from three programs located in three districts (270.33 FTE students and 17.3 FTE teachers). In aggregate, the additional costs per FTE student were: Teacher Salary and Benefits, $334; Other Costs $759; Total $1,103. Pupil-teacher ratios were: IB 15.63 to 1; Basic Program Grades 9-12 16.06 to 1. Based on the 1986-87, Base Student Allocation of $2,013.10, the additional cost per FTE of $1,103 would equate to a supplement of .55 per FTE.

Two schools provided data on Pre IB courses. This data is also presented by the exhibit.

The aggregated costs per student were: Teacher Salary and Benefits, $69; Other Costs, $134; Total: $203. Based on the 1986-87 BSA, the additional costs per student of $203 would equate to a supplement of .10 per student.

INTERNATIONAL BACCALAUREATE PROGRAM
1986-87 COST SURVEY

1 DISTRICT (IB SUMMARY)	2 SCHOOL	3 FTE STUDENTS	4 FTE TEACHERS	5 TOTAL OTHER COSTS/FTE	6 SAL & BEN DIFFERENTIAL	7 TOTAL ADD COSTS/FTE	8 P:T RATIO FOR IB	9 P:T RATIO FOR PROG 103	10 TOTAL OTHER COSTS/STUDENT	11 SAL & BEN DIFF BASED ON STUDNT	12 TOTAL ADD COSTS/STUDENT
ORANGE	WINTER PARK HS	17.50	1.2	1149	321	1470	14.58	17.99	192	64	256
PINELLAS	ST PETE HS	157.83	9.2	741	107	849	17.16	15.74	124	21	145
ALACHUA	EASTSIDE HS	95.00	6.9	896	624	1520	13.77	14.53	140	125	265
	SURVEY TOTAL	270.33	17.3	822	344	1166	15.63	16.06	134	69	203

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PRE-INTERNATIONAL BACCALAUREATE PROGRAM
1986-87 COST SURVEY

1 DISTRICT (PIB SUMMARY)	2 SCHOOL	3 FTE STUDENTS	4 FTE TEACHERS	5 TOTAL OTHER COSTS/FTE	6 SAL & BEN DIFFERENTIAL	7 TOTAL ADD COSTS/FTE	8 P:T RATIO FOR PIB	9 P:T RATIO FOR PROG 103	10 TOTAL OTHER COSTS/STUDENT	11 SAL & BEN DIFF BASED ON STUDNT	12 TOTAL ADD COSTS/STUDENT
ORANGE	WINTER PARK HS	14.5	1.0	445	465	910	14.50	17.99	74	93	167
ALACHUA	EASTSIDE HS	121.75	7.8	615	367	982	15.61	14.53	97	73	170
	SURVEY TOTAL	136.25	8.8	597	488	1086	15.48	16.21	94	98	192

Source: Florida Department of Education, Bureau of Management Systems and Services

SURVEY FORM

1. DISTRICT _____

2. SCHOOL _____

1986-87 COURSES

3. ADVANCED PLACEMENT _____ INTERNATIONAL BACCALAUREATE _____

4. COURSE TITLE _____ 5. Course Number _____

6. LENGTH OF COURSE: 1 Semester _____ 2 Semesters _____

7. LENGTH OF COURSE IN MINUTES PER WEEK _____

8a. TEACHER NAME _____

8b. 1986-87 ANNUAL SALARY $_____

9. NUMBER OF STUDENTS IN CLASS _____

EXTRA COST ITEMS: Please list items purchased that would not be purchased or would cost more than the similar item used for a regular basic class to which the students might have been alternatively assigned. If items cost more, only show the difference.

10a. TEXTBOOKS:ORIGINAL COST OF BOOKS AND OTHER TEXT MATERIALS PURCHASED FOR THIS CLASS THAT WILL BE USED FOR MORE THAN ONE YEAR:$_____

10b. ESTIMATED NUMBER OF YEARS BOOKS WILL BE USED:

11. COST OF BOOKS AND OTHER TEXT MATERIALS TO BE USED ON A ONE TIME BASIS (one year or less): $_____

12. CONSUMABLE (one year or less) SUPPLIES AND TEACHING MATERIALS: Describe and give cost or estimated cost. Label estimates with (E). $_____

13. OTHER EXTRA COST ITEMS: Describe and give cost or estimated cost. Label estimates with (E).
a) Examinations $_____

14a. SPACE USED: Average classroom YES _____ NO _____

14b. If no, state school's average classroom size in square feet _____ and size of classroom space used _____.

State of Florida
Department of Education
Tallahassee, Florida
Betty Castor, Commissioner
Affirmative action/equal opportunity employer